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ABSTRACT

This supplement updates the original catalog of available PLATO system instructional materials which was published in April 1980. The lessons described have been used in actual instructional situations, or have had adequate testing to guarantee that the files are in working order. Printed directly from the CERL online catalog, "unicat," the information provided for each citation includes the subject, a subheading, a title with its PLATO code, year of first copyright and publication date, author, location of the author at the time the lesson was produced, an abstract, auxiliary equipment required, lesson completion time, and intended audience. Library of Congress subject headings have been used to catalog the lessons whenever possible, and extensive cross references are provided. The materials listed range in level of difficulty from the primary level through higher education, and embrace a wide variety of disciplines; e.g., reading; basic mathematics; languages, including English composition and English as a second language; business and accounting; botany, chemistry, and physics; algebra; statistics; engineering education; teacher training; and medical education, including simulations for physicians, nursing, and pharmacology courses. (LLS)

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CERL PLATO LESSON CATALOG

Curricular and Utility Programs

Supplement Number 1

by

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UNIVERSITY OF ILLINOIS, URBANA, ILLINOIS
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FOREWORD

The CERL PLATO Lesson Catalog Supplement Number 1 presents information on materials made available since publication of the original volume published in April 1980. The materials contained herein are lessons which have been used in actual instructional situations, or have had adequate testing to guarantee that the files are in working order. The information in the catalog is printed directly from the CERL on-line catalog, "uicat".

The information for each lesson is presented in the following format:

Subject
Sub-heading (if any)
TITLE (PLATO lesson codename; year of first copyright; publication year)
Author(s)
Location of author(s) at time of lesson production
Abstract of lesson
Auxiliary equipment required; lesson completion time; intended audience

Library of Congress subject headings have been used to catalog the lessons whenever possible. Extensive cross referencing of the lessons has been made. Thus, repetition of lessons and their information abounds throughout the catalog for the convenience of the users.

Also provided with this supplement are a listing by title of all those lessons published since the printing of the original catalog, and an updated index to both the CERL PLATO Lesson Catalog and the CERL PLATO Lesson Catalog Supplement Number 1. Page numbers prefixed with an "s" are listed in the supplement.

LESSONS PUBLISHED SINCE APRIL 1980

Addition with Sticks and Place Value with Sticks
Alkane Nomenclature
Amino Acids: Structures and Biochemical Characteristics
An Introduction to Action Potentials
Anatomical Reference Terminology
Anatomical Terminology I: How to Analyze Anatomical Terms
Anatomical Terminology II: Dictionary and Drill for Roots, Prefixes and Suffixes
Anatomical Terminology III: Competitive Drill on Root Words
Anatomical Terminology IV: Competitive Drill on Prefixes and Suffixes
Anatomical Terminology V: Quiz on Roots, Prefixes and
Anatomical Terminology VI: Anatomy Vocabulary Drill-Quiz
Areas
Arithmabattle
Automated Chem I: Introduction to SMA 6/60
Automated Chem II: Introduction to SMA 12/60
Basic Thermodynamics Quiz
Basic Virology I: Structural Characteristics of the Virion
Basic Virology IIA: Viral Multiplication (Adsorption thru Eclipse)
Basic Virology IIB: Viral Multiplication (Replication thru Release)
Basic Virology III: Viral Diagnostic Techniques
Behavior of Gases
Blood Coagulation I: Platelets and Cellular Elements
Blood Coagulation II: Intrinsic and Extrinsic Coagulation
Blood Coagulation Quizzes
Carbohydrates III: Carbohydrate Identification and Structure
Carbohydrates IV: Identification of Carbohydrates
Carrying in Addition
Chronic Bronchitis
Computer Numbers
Contraceptive Methods
Cranial Nerves I
Cranial Nerve Review and Drill
Determination of the Activity of the Halogens
Determination of the Percent Oxygen in an Unknown Sample
Effects of Doses, Dosing Interval, and Individual Parameters Steady State Plasm Drug Profiles
Electrical Hazards and Protection
Emergency Treatment of Patient Reactions to Contrast Media
Enzyme-Hormone Interactions
Enzyme Kinetics: Alosteric Control
Enzyme Kinetics: Interactive Graphics
Enzyme Kinetics: Introduction
Flowering and Photoperiod
FORTRAN´S Format Statement
Free Cell
Fruiting and Leaf Senescence
Functional Mechanics of Ventilation
Gas Transport in Blood
Gastrointestinal Illness Aboard an Airplane
Gastrointestinal Illness Aboard a Cruise Ship

Genetic Risk Estimates
Hemoglobin Determination Using the Klett-Summerson Colorimeter
History in Respiratory Disease
Horse Talk
How to Write Equations for Net Ionic Reactions
Identification of Lipids and Lipid-like Compounds
Immunization Against Influenza in High-Risk Children
Introduction to Probability
Introduction to Respiration and Ventilation
Introduction to Serum Enzymes
Instrument Pilot-Airplane - Written Examination Study Guide
Instrument Pilot-Helicopter - Written Examination Study Guide
Interpretation of EKG
An Introduction to Medical Library Cataloguing
Introduction to Optical Microscopy
Lesson Comparator
Lines and Crossing Points
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Medical Center
Medical Parasitology I: Commensal Amoebae
Medical Parasitology II: Pathogenic Amoebae
Medical Parasitology III: A Typical Sporozoan Life Cycle
Medical Parasitology IV: Parasitic Sporozoans (Part I)
Medical Parasitology V: Parasitic Sporozoans (Part II)
Medical Parasitology VI: Tissue and Lumen-Dwelling Ciliates
Medical Parasitology VII: Tissue and Lumen-Dwelling Flagellates
Medical Parasitology VIII: African Trypanosomiasis
Medical Parasitology IX: American Trypanosomiasis
Medical Parasitology X: Leishmaniasis
Microbial Toxins I: Algal and Fungal Species
Microbial Toxins II: Bacterial Toxins
Microbial Toxins III: Clinical Cases
Mysterious Spinal Cord Case II: The Brown Sequard Syndrome
Noxious Drugs
Nucleic Acids II: Identification of Nucleic Acids
Oral Contraceptives and Neoplasia
Painful Knee in a Child: Management and Prognosis
Pedigrees: Reading and Writing Them
Penicillin-Resistant Streptococcus Pneumoniae
Physical Examination of the Respiratory System
Physiology of AHD (Antidiuretic Hormone)
Plant Responses and Apical Dominance
PLATO and You
Population Genetics
Populations Laboratory
Private Pilot - Written Examination Study Guide
Problem-Oriented Medical Records
Problem Solving in Clinical Medicine: Backache
Problem Solving in Clinical Medicine: Checkup
Problem Solving in Clinical Medicine: Cough
Problem Solving in Clinical Medicine: Ear Infection
Problem Solving in Clinical Medicine: Indigestion
Problem Solving in Clinical Medicine: Return Visit
Problem Solving in Clinical Medicine: Sore Throat

Problem Solving in Clinical Medicine: Stomach Trouble
Problem Solving in Clinical Medicine: Weakness
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Pulmonary Embolism
Purine Metabolism
Pyrimidine Metabolism
Quiz on Medical Protozoan Parasitology
Resting Membrane Potential
Simulated Patient Encounters
Skeletal Muscle Physiology, Part I
Skeletal Muscle Physiology, Part II
Skeletal Muscle Physiology, Part III
Skeletal Muscle Physiology, Comprehensive Quiz
Spinal Cord Anatomy, A Clinical Approach
Spinal Nerve Lesion
Swollen, Palpable Mass in a Seven-Year-Old Boy
Tender, Painful Extremities
The Case of the Contaminated Cultures
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The French Language in the World, Parts I and II
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Accounting - Index

ACCOUNTANCY INDEX (comr;1978;unpublished)
James C McKeown
Department of Accountancy, U of I, Urbana, Illinois
This lesson provides an index to basic financial accounting and basic managerial accounting lessons. They can also be found catalogued individually via the title and subject indexes.
none;open-ended;persons interested in accounting

Addition

CROSS NUMBER GAME (crossnum;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
By way of a crossword puzzle format, this lesson gives the student practice working addition problems and practice adjusting numbers in problems to get pre-specified numbers.
none;open-ended;intermediate level elementary students

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

THE FOURS PROBLEM (fourprob;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Aeronautics

AIRCRAFT HYDRAULIC POWER SYSTEM COMPONENTS (pneua;1981;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This two part lesson on aircraft covers component identification, structural features, and functional operation of flow control devices and hydraulic system pumps.
none;none;aviation mechanics

AIRLINE TRANSPORT PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (atflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for airline transport pilot. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

A AND P MECHANICS, GENERAL - WRITTEN EXAMINATION STUDY GUIDE (mflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for general A and P flight mechanics. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student flight instructors

A AND P MECHANICS, POWERPLANT - WRITTEN EXAMINATION STUDY GUIDE (ppflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for powerplant A and P flight mechanics. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student flight instructors

BOEING-727 HYDRAULIC LEAK CHECKS: FLIGHT CONTROLS; TRAILING EDGE FLAPS (bo7271c3;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform an internal leak check of the 727 flight control hydraulic system using the controls and indicators in the cockpit, and to determine by observing hydraulic pressure variations, if any of the flight control hydraulic components are leaking and where in the sub-system the leak is occurring.
none;none;aviation mechanics

BOEING-727 HYDRAULIC LEAK CHECKS: INTRODUCTION TO BOEING-727 HYDRAULIC CONTROLS (bo7271c1;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform leak checks on the B-727 hydraulic system using the controls and indicators in the cockpit, identify components subjected to hydraulic leaks, and specify the appropriate action required to correct the hydraulic leaks.
none;none;aviation mechanics

BOEING-727 HYDRAULIC LEAK CHECKS: SYSTEM "B" PRESSURE CHECK; RELIEF VALVE AND BRAKE CHECK (bo7271c2;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform the System "B" pump pressure and relief valve and brake checks, and to specify the appropriate action required to correct the hydraulic leaks.
none;none;aviation mechanics

COMMERCIAL PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (cflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
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This lesson allows the student pilot to practice taking the written examination for commerical pilot. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

FLIGHT INSTRUCTOR, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (fflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for airplane flight instructor. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student flight instructors

FUNDAMENTALS OF INSTRUCTING - WRITTEN EXAMINATION STUDY GUIDE (foflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for fundamentals of flight instruction. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
none;open-ended;student flight instructors

HOLDING PATTERNS, AN INTRODUCTION (holding;1981;unpublished)
Stanley R Trollip
Institute of Aviation, University of Illinois
This lesson discusses areas of flight holding patterns that cause problems and is intended for use by persons who either have read or have been given ground instruction on holding patterns.
none;none;students of aviation

INSTRUMENT PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (iflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for instrument pilot-airplane. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

INSTRUMENT PILOT, HELICOPTER - WRITTEN EXAMINATION STUDY GUIDE (hflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for instrument pilot-helicopter. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

727 FD108 FLIGHT DIRECTOR (fd108a;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to identify and locate the components associated with the 727 Flight Director.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - ABNORMAL OPERATIONS (fd108c;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to recognize failure flags, identify the problem, and select the appropriate corrective action(s) required to reinstate the failed flight director system, where possible, in flight.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - NORMAL PROCEDURES
(fd108b;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user will be able to perform normal procedures in all modes of operation during exercises simulating operation of the Collins FD108.
none;none;student pilots

727 FD108 FLIGHT DIRECTOR - PROFICIENCY CHECK
(fd108d;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
This lesson provides a sequence of simulation exercises that provides the user with an opportunity to demonstrate skill in operating the FD108 flight director system, based on the "727 FD108 Flight Director" lessons.
none;none;student pilots

Aeronautics--Examinations, questions, etc.

AIRLINE TRANSPORT PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (atflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
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supplemental handout;open-ended;student pilots

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supplemental handout;open-ended;student flight instructors

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supplemental handout;open-ended;student flight instructors

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supplemental handout;open-ended;student pilots

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supplemental handout;open-ended;student flight instructors

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supplemental handout;open-ended;student pilots

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none;none;student pilots

Aeronautics, Commercial

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supplemental handout;open-ended;student pilots

Aeroplanes--Hydraulic equipment

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none;none;aviation mechanics

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none;none;aviation mechanics

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none;none;aviation mechanics

Aeroplanes--Maintenance and repair

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supplemental handout;open-ended;student flight instructors

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supplemental handout;open-ended;student pilots

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touch panel;none;student pilots

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touch panel;none;student pilots

Agglutinins

COLD AGGLUTININS (shp107;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson treating the cold agglutinin test for pneumonia, the student should be able to properly collect and transport specimens for cold agglutinin titers and utilize test results as an aid in diagnosis of atypical pneumonia.
none;none;physicians' assistants

FEBRILE AGGLUTINATIONS (shp113;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson discusses the diseases for which febrile agglutinations are useful diagnostic aids, the significance of these tests, and the tests themselves. There is a quiz at the end.
none;none;physician's assistants

Airway (Medicine)

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

UPPER AIRWAY DISEASE PART 2 (shp36;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson simulates a physical examination that concentrates on the nose and nasal passageways, the chest, the ears, and the nasopharynx and oropharynx. The student is asked questions along the way to test his or her understanding of the material.
none;none;physicians' assistants

Allergy

CONTACT DERMATITIS (shp130;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the immune response that causes contact dermatitis.
none;none;physicians' assistants

FACTORS WHICH AFFECT ALLERGIC RESPONSE (shp126;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson treats the factors that may alter a patient's responsiveness to allergens as well as those that may contribute to the development of allergy symptoms.
none;none;physicians' assistants

INHALED ALLERGENS (shp118;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson treats the subject of allergens absorbed by inhalation, namely allergens transported by air currents and drafts.
none;none;physicians' assistants

SEASONAL ALLERGENS AND SKIN TESTS (shp67;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses skin tests related to seasonal allergens (pollens and fungal spores).
none;none;physicians' assistants

Ammeter

USE OF THE SIMPSON MULTIMETER TO MEASURE DC CURRENT
(san21;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson is designed to help the user arrive at the proper connection of the meter for measuring current flow when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.

none;none;students of electronics

Anatomy--Examinations, questions, etc.

CRANIAL NERVES III (cranny3;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois

This lesson deals with cranial nerve sensory nuclei.

none;none;first year medical students

Anatomy, Human

ORGANIZATION OF THE HUMAN BODY (shp279;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson defines anatomy, physiology, and anatomical position, and provides descriptions of cell, tissues, membranes, organs and systems of the body. A glossary of unfamiliar terms is available throughout the lesson.

none;none;students of the health sciences

STRUCTURES AND FUNCTIONS OF THE SKELETAL SYSTEM
(shp289;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson describes the function of bones, and diagrams and labels the skeletal system. A glossary of unfamiliar terms is available throughout the lesson.

none;none;students of the health sciences

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS
(shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.

none;none;students of the health sciences

Anatomy, Human--Examinations, questions, etc.

ANATOMICAL SCHEMATICS (shp15;1974;unpublished)
Michael W Smith
Sheppard Air Force Base, Texas
This lesson provides graphical drill and review of bones, ligaments, joints, muscles and visceral anatomy.
none;none;physicians' assistants

CRANIAL NERVES I (cranny;1978;1981)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson treats the functional classification of cranial nerves.
none;none;first year medical students

CRANIAL NERVES II (cranny2;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson presents the cranial nerve motor nuclei.
none;none;first year medical students

Anatomy, Surgical and topographical

INTRODUCTION TO RESPIRATION AND VENTILATION, PART II (shp109;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the air conduction passageways that are involved in the process of pulmonary ventilation.
touch panel;none;physician's assistants

Anesthetics

OPHTHALMIC TOPICAL ANESTHETICS (shp308;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
This lesson treats the selection and use of ophthalmic topical anesthetics. The accepted and safe procedure for instillation of ophthalmic drops is also described.
none;none;students of optometry

Antibiotics

SENSITIVITY TO ANTIBIOTICS (shp61;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson defines antibiotics and discusses antibiotic sensitivity testing.
none;none;physicians' assistants

Anticoagulants (Medicine)

MANAGEMENT OF PULMONARY EMBOLISM (shp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

Applications for positions

HOW TO FILL OUT JOB APPLICATION FORMS (jobappl;1981;unpublished)
Karen G Wolfsen, Jim Mayeda
School of Social Work, University of Illinois, Urbana
With examples and practice, this lesson teaches the user how to fill out a job application form.
touch panel;none;general

Arithmetic

Addition

CROSS NUMBER GAME (crossnum;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
By way of a crossword puzzle format, this lesson gives the student practice working addition problems and practice adjusting numbers in problems to get pre-specified numbers.
none;open-ended;intermediate level elementary students

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

THE FOURS PROBLEM (fourprob;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Division

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none;open-ended;intermediate level elementary students

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none;open-ended;intermediate level elementary students

General

AN INDEX OF BASIC MATHEMATICS LESSONS (mathindex;1980;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
The lessons in this index were designed as part of the PLATO Mathematics Project at the University of Illinois' Computer-based Education Research Laboratory.
none;variable;elementary level students

Multiplication

MAKE A BUNDLE (zbundleg;1976;unpublished)
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U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

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This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Percentage

PRACTICE SOLVING PERCENT PROBLEMS (percent;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson presents five levels of common percent problems, ranging from basic calculations to standard word problems. After doing well at the first level the student is given the option of going on to the next level.
none;variable;high school students

Subtraction

MAKE A BUNDLE (zbundleg;1976;unpublished)
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U of I NSF Elem. Math. Group, Urbana, Illinois
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none;open-ended;intermediate level elementary students

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This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.
none;60 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.
none;30 minutes;students of electronics

NUMBER SYSTEMS (afsl;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.
none;30 minutes;students of electronics

Arithmetic--Problems, exercises, etc.

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

MAN FLIES TO THE MOON (sstories;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice in using various arithmetic skills to help the students understand what they read. The history of the U.S. space program is described briefly and interspersed with the text are a number of questions involving problem solving skills which help to clarify the meaning of what is written.
none;none;intermediate level elementary students

PRACTICE SOLVING PERCENT PROBLEMS (percent;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson presents five levels of common percent problems, ranging from basic calculations to standard word problems. After doing well at the first level the student is given the option of going on to the next level.
none;variable;high school students

Armatures

THE D. C. GENERATOR (cha33;1973;unpublished)
Perry S Main
Chanute Air Force Base, Illinois
This lesson covers the functions and principles of operation of eight major components of the direct current generator. A test follows the instruction.
none;none;persons interested in automobile mechanics

Asthma

ASTHMA (shp101;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
In this lesson the student will learn to identify the symptoms of asthma and etiologic (causative) factors. Additionally, the user will become familiar with the modes of therapy for asthma and, given a specific patient, prescribe the appropriate therapy.
none;none;physicians' assistants

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

Ausculation

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

Automobile driving--Steering

STEERING FACTORS (cha99;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the importance of proper wheel alignment to the steering system and tire wear patterns. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

Automobile mechanics

AIR AND EXHAUST SYSTEMS (cha50;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson provides a discussion of the basic facts and principles relating to the operation of air and exhaust systems. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

AIR BRAKES (cha75;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the automobile air brake system components and the operation of that system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

ALTERNATOR CHARGING SYSTEMS (cha47;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson teaches component identification and the operating principles of the automotive alternator and the alternator regulator. Drills are provided for student practice.
none;none;persons interested in automobile mechanics

APPLICATIONS OF MAGNETISM (elecfund5;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses some of the different mechanical and electrical ways in which magnetism is used.
none;none;persons interested in automobile mechanics

AUTOMOTIVE A. C. CHARGING SYSTEM (cha20;1973;unpublished)
Mel Marcus
Chanute Air Force Base, Illinois
This lesson teaches component identification and operating principles of the alternator and alternator regulator, main areas of the automotive alternating current charging system.
microfiche;none;persons interested in automobile mechanics

AUTOMOTIVE COOLING SYSTEM (cha5;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson provides the student with the knowledge necessary to identify correctly all of the components of a cooling system and to describe the purpose of each component.
none;none;persons interested in automobile mechanics

AUTOMOTIVE ENGINE LUBRICATION SYSTEM (cha8;1972;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and principles relating to the operation of engine lubricating systems.
none;none;persons interested in automobile mechanics

AUTOMOTIVE OSCILLOSCOPE (cha60;1974;unpublished)
Forrest Danner, John Predmore
Chanute Air Force Base, Illinois
This lesson diagrams the automotive oscilloscope and teaches the student to identify the purpose of each control.
touch panel;none;persons interested in automobile mechanics

BATTERY HYDROMETER (cha26;1974;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
In this lesson the student will learn to use a battery hydrometer to determine the state of charge in a battery.
none;none;persons interested in automobile mechanics

BATTERY IGNITION GAME (cha61;1974;unpublished)
K J Wigton, Peggy McClintock
Chanute Air Force Base, Illinois
This lesson provides a game for the review of the firing order of battery ignition. The objective of the game is to align the ignition components to show the proper order, from battery ground to the firing order of a 1973 Chevrolet engine.
none;open-ended;persons interested in automobile mechanics

BATTERY IGNITION SYSTEM (cha35;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the battery ignition system through discussion of high and low voltage, and schematic drawings and symbols.
none;none;persons interested in automobile mechanics

BATTERY PRINCIPLES (cha11;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of storage batteries, concentrating on the purpose and construction of the automotive storage battery.
none;none;persons interested in automobile mechanics

CARBURETOR DRILL (cha23;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This exercise presents the automotive carburetor by individual circuits. Problems with each circuit are added and the user is able to practice diagnosing the problems.
none;none;persons interested in automobile mechanics

CLUTCHES (cha67;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson discusses the parts, assembly, and linkage of the automotive clutch.
none;none;persons interested in automobile mechanics

COMPRESSION IGNITION ENGINES (cha74;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of compression engines, commonly referred to as diesel engines.
none;none;persons interested in automobile mechanics

CONVERSION OF METRIC MEASUREMENTS TO ENGLISH MEASUREMENTS (abe25;1973;unpublished)
Frank C Dare
U. S. Army Ordnance Center and School, Aberdeen, Md.
This lesson gives the student practice in converting metric measurements to English measurements and vice versa. The instruction is followed by a quiz.
none;none;general; persons interested in automobile mechanics

CRANKING MOTORS (cha41;1980;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson discusses the purposes, the components, and the principles of operation of an automotive starting system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

CURRENT, VOLTAGE AND RESISTANCE (cha38;1973;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson defines and illustrates the concepts of current, voltage and resistance. There is also a drill on the names of electrical units.
none;none;persons interested in automobile mechanics

DIFFERENTIALS (cha66;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automotive and truck differentials, front and rear driving axles and planetary gear reduction. There is a test at the end.
none;none;persons interested in automobile mechanics

ELECTRIC FUNDAMENTALS (elecfund1;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson presents basic facts and general principles of electricity, including electron theory, series circuits, parallel circuits, series-parallel circuits, laws concerning voltage, current and resistance, and magnetism and induction.
none;none;persons interested in automobile mechanics

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ELECTRICAL SCHEMATICS (cha77;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents 28 possible components of electrical systems through electrical schematics and diagrams. There is a quiz at the end of the lesson.
none;none;persons interested in automobile mechanics

ELECTRONIC IGNITION SYSTEM (cha31;1973;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents the principles of operation and components of an electronic ignition system. Questions are provided for the student's review.
none;none;persons interested in automobile mechanics

ELECTRONIC SCOPE PATTERNS (sun;1976;unpublished)
Tom Black
Chanute Air Force Base, Illinois
This lesson is designed to assist students of automobile mechanics in electronic scope pattern identification and interpretation, which is essential for maintenance of the ignition system.
none;none;persons interested in automobile mechanics

EMISSION CONTROLS (cha3;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of automobile emission control and anti-pollution devices. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

ENGINE CLASSIFICATION (cha1;1972;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson teaches the student to identify automotive engines according to the type of fuel used, number of strokes per cycle, method of cooling, block design, and valve arrangement.
microfiche;none;persons interested in automobile mechanics

FUEL PUMP TEST (PRESSURE) (cha64;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson instructs the student in how to perform pressure tests on automotive fuel pumps. There is a quiz at the end of the lesson to assess the student's understanding of the material.
none;none;persons interested in automobile mechanics

FUEL PUMP TEST (VOLUME) (cha16;1972;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois

This lesson instructs the student in how to perform fuel pump tests for volume. There is a quiz at the end of the lesson to assess the student's understanding of the material.

none;none;persons interested in automobile mechanics

FUEL SYSTEMS (cha19;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois

This lesson provides basic facts and principles related to the operation of a gasoline engine fuel system. There is a quiz at the end of the lesson.

none;none;persons interested in automobile mechanics

GASOLINE ENGINE PRINCIPLES (cha91;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois

This lesson defines and illustrates the basic operating principles of gasoline engines.

none;none;persons interested in automobile mechanics

HYDRAULIC AND MECHANICAL BRAKE SYSTEMS (cha76;1980;unpublished)
R Blocker
Chanute Air Force Base, Illinois

This lesson presents basic facts and general principles of hydraulic brake systems and components.

none;none;persons interested in automobile mechanics

HYDRAULIC SCHEMATICS (cha65;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois

This lesson presents hydraulic schematics and diagrams to enable the student to learn to identify and review all of the components.

none;none;persons interested in automobile mechanics

IDENTIFICATION OF THE PARTS OF A GAS ENGINE (cha12;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois

In the first part of the lesson the student is presented with cutaway views of a gasoline engine and is asked to identify the basic components. Then the student is asked to match the components with a description of their purpose.

none;none;persons interested in automobile mechanics

IGNITION PATTERNS (cha42;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automobile ignition patterns, relative components, circuit malfunctions and the use of the oscilloscope for the diagnosis of common malfunctions.
none;none;persons interested in automobile mechanics

IGNITION SYSTEM SCHEMATIC AND SYMBOLS (cha94;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson presents the student with the symbols for each component in an automotive battery ignition system and also teaches the student to diagram the ignition wiring system. A test follows the instruction.
none;none;persons interested in automobile mechanics

INTRODUCTION TO ENGINE PARTS (cha2;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson teaches the student to understand and recognize the most visible automobile engine parts. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

INTRODUCTION TO MAGNETISM (elecfund4;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson teaches the basic principles of magnetism, treats its importance, and explains how magnets work. There is a quiz at the end.
none;none;persons interested in automobile mechanics

LIGHTING SYSTEMS (cha49;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of vehicle lighting systems. In addition to exterior and interior lights, wiring and control switches are discussed.
none;none;persons interested in automobile mechanics

MECHANICAL STEERING SYSTEM (cha121;1975;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses the relationship of basic facts and general operating principles of automotive mechanical steering systems. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

OPERATING PRINCIPLES OF FRONT AND REAR SUSPENSION
(cha89;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of the front and rear automobile suspension systems, including springs, spring hangers and shackles, frame and axle, and shock absorbers.
none;none;persons interested in automobile mechanics

PARALLEL CIRCUITS (elecfund3;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those parallel circuits relative to automobiles.
none;none;persons interested in automobile mechanics

POWER ASSISTED BRAKES (cha72;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson presents the power assisted automobile brake system components and explains the operation of that system.
none;none;persons interested in automobile mechanics

POWER STEERING PRINCIPLES (cha96;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson provides information on automotive power steering principles. A test follows the instruction.
none;none;persons interested in automobile mechanics

PRINCIPLES OF HYDRAULICS (cha78;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents basic laws and terminology of hydraulics as well as the basic automotive hydraulic system components.
none;none;persons interested in automobile mechanics

PRINCIPLES OF OPERATION OF THE AUTOMATIC TRANSMISSION
(cha73;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of fluid couplings, torque converters and automatic transmissions.
none;none;persons interested in automobile mechanics

SERIES CIRCUITS (elecfund2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those series circuits relative to automobiles.
none;none;persons interested in automobile mechanics

STARTER MOTOR DIAGNOSIS GAME (cha34;1973;unpublished)
Jan Dallman, K J Wigton
Chanute Air Force Base, Illinois
In this simulation the student asks questions which aid in the diagnosis of an automotive malfunction.
none;none;persons interested in automobile mechanics

STEERING FACTORS (cha99;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the importance of proper wheel alignment to the steering system and tire wear patterns. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

THE D. C. GENERATOR (cha33;1973;unpublished)
Perry S Main
Chanute Air Force Base, Illinois
This lesson covers the functions and principles of operation of eight major components of the direct current generator. A test follows the instruction.
none;none;persons interested in automobile mechanics

TRANSFER CASES/POWER TAKE-OFF (cha86;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson treats the basic facts and principles of transfer cases and power take-off units.
none;none;persons interested in automobile mechanics

TROUBLE SHOOTING FUEL SYSTEMS (abe26;1973;unpublished)
Frank C Dare
U. S. Army Ordnance Center and School, Aberdeen, Md.
This exercise is based on the fuel system of an Army "Jeep". The computer randomly selects one of eight automotive problems and the student must try to diagnose and correct the problem.
none;none;persons interested in automobile mechanics

U-JOINTS AND PROPELLER SHAFTS (cha82;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the basics and operating principles of propeller shafts, universal joints, center bearings and slip joints.
none;none;persons interested in automobile mechanics

VALVE TRAIN MECHANISMS (cha18;1973;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson treats the mechanical and hydraulic valve operating system and discusses timing chains, camshafts, lifters, push rods, and valves.
none;none;persons interested in automobile mechanics

VEHICLE WARNING SYSTEMS (cha85;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson discusses vehicle warning systems, both audible and visual.
none;none;persons interested in automotive or other vehicle mechanics

VOLTAGE, CURRENT, RESISTANCE AND SERIES CIRCUITS (gpelec2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses the following topics relative to the automobile: voltage, current, and resistance, and their measurement; series circuits.
none;none;persons interested in automobile mechanics

WELCOME TO THE FUEL TANK (cha7;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents the automotive fuel tank and its components, their location, purpose and construction. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Batteries

BATTERY HYDROMETER (cha26;1974;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
In this lesson the student will learn to use a battery hydrometer to determine the state of charge in a battery.
none;none;persons interested in automobile mechanics

BATTERY IGNITION GAME (cha61;1974;unpublished)
K J Wigton, Peggy McClintock
Chanute Air Force Base, Illinois
This lesson provides a game for the review of the firing order of battery ignition. The objective of the game is to align the ignition components to show the proper order, from battery ground to the firing order of a 1973 Chevrolet engine.
none;open-ended;persons interested in automobile mechanics

BATTERY IGNITION SYSTEM (cha35;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the battery ignition system through discussion of high and low voltage, and schematic drawings and symbols.
none;none;persons interested in automobile mechanics

BATTERY PRINCIPLES (cha11;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of storage batteries, concentrating on the purpose and construction of the automotive storage battery.
none;none;persons interested in automobile mechanics

IGNITION SYSTEM SCHEMATIC AND SYMBOLS (cha94;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson presents the student with the symbols for each component in an automotive battery ignition system and also teaches the student to diagram the ignition wiring system. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Bearings

U-JOINTS AND PROPELLER SHAFTS (cha82;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the basics and operating principles of propeller shafts, universal joints, center bearings and slip joints.
none;none;persons interested in automobile mechanics

Automobiles--Brakes

AIR BRAKES (cha75;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the automobile air brake system components and the operation of that system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

HYDRAULIC AND MECHANICAL BRAKE SYSTEMS (cha76;1980;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson presents basic facts and general principles of hydraulic brake systems and components.
none;none;persons interested in automobile mechanics

POWER ASSISTED BRAKES (cha72;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson presents the power assisted automobile brake system components and explains the operation of that system.
none;none;persons interested in automobile mechanics

Automobiles--Clutches

CLUTCHES (cha67;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson discusses the parts, assembly, and linkage of the automotive clutch.
none;none;persons interested in automobile mechanics

Automobiles--Drawings

HYDRAULIC SCHEMATICS (cha65;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents hydraulic schematics and diagrams to enable the student to learn to identify and review all of the components.
none;none;persons interested in automobile mechanics

Automobiles--Electric generators

ALTERNATOR CHARGING SYSTEMS (cha47;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson teaches component identification and the operating principles of the automotive alternator and the alternator regulator. Drills are provided for student practice.
none;none;persons interested in automobile mechanics

AUTOMOTIVE A. C. CHARGING SYSTEM (cha20;1973;unpublished)
Mel Marcus
Chanute Air Force Base, Illinois
This lesson teaches component identification and operating principles of the alternator and alternator regulator, main areas of the automotive alternating current charging system.
microfiche;none;persons interested in automobile mechanics

THE D. C. GENERATOR (cha33;1973;unpublished)
Perry S Main
Chanute Air Force Base, Illinois
This lesson covers the functions and principles of operation of eight major components of the direct current generator. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Electric wiring

ELECTRICAL SCHEMATICS (cha77;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents 28 possible components of electrical systems through electrical schematics and diagrams. There is a quiz at the end of the lesson.
none;none;persons interested in automobile mechanics

LIGHTING SYSTEMS (cha49;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of vehicle lighting systems. In addition to exterior and interior lights, wiring and control switches are discussed.
none;none;persons interested in automobile mechanics

Automobiles--Fuel systems

FUEL PUMP TEST (PRESSURE) (cha64;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson instructs the student in how to perform pressure tests on automotive fuel pumps. There is a quiz at the end of the lesson to assess the student's understanding of the material.
none;none;persons interested in automobile mechanics

FUEL PUMP TEST (VOLUME) (cha16;1972;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson instructs the student in how to perform fuel pump tests for volume. There is a quiz at the end of the lesson to assess the student's understanding of the material.
none;none;persons interested in automobile mechanics

FUEL SYSTEMS (cha19;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson provides basic facts and principles related to the operation of a gasoline engine fuel system. There is a quiz at the end of the lesson.
none;none;persons interested in automobile mechanics

TROUBLE SHOOTING FUEL SYSTEMS (abe26;1973;unpublished)
Frank C Dare
U. S. Army Ordnance Center and School, Aberdeen, Md.
This exercise is based on the fuel system of an Army "Jeep". The computer randomly selects one of eight automotive problems and the student must try to diagnose and correct the problem.
none;none;persons interested in automobile mechanics

WELCOME TO THE FUEL TANK (cha7;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents the automotive fuel tank and its components, their location, purpose and construction. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Gearing

DIFFERENTIALS (cha66;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automotive and truck differentials, front and rear driving axles and planetary gear reduction. There is a test at the end.
none;none;persons interested in automobile mechanics

TRANSFER CASES/POWER TAKE-OFF (cha86;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson treats the basic facts and principles of transfer cases and power take-off units.
none;none;persons interested in automobile mechanics

Automobiles--Horns

VEHICLE WARNING SYSTEMS (cha85;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson discusses vehicle warning systems, both audible and visual.
none;none;persons interested in automotive or other vehicle mechanics

Automobiles--Hydraulic equipment

HYDRAULIC AND MECHANICAL BRAKE SYSTEMS (cha76;1980;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson presents basic facts and general principles of hydraulic brake systems and components.
none;none;persons interested in automobile mechanics

HYDRAULIC SCHEMATICS (cha65;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents hydraulic schematics and diagrams to enable the student to learn to identify and review all of the components.
none;none;persons interested in automobile mechanics

PRINCIPLES OF HYDRAULICS (cha78;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents basic laws and terminology of hydraulics as well as the basic automotive hydraulic system components.
none;none;persons interested in automobile mechanics

Automobiles--Ignition

BATTERY IGNITION GAME (cha61;1974;unpublished)
K J Wigton, Peggy McClintock
Chanute Air Force Base, Illinois
This lesson provides a game for the review of the firing order of battery ignition. The objective of the game is to align the ignition components to show the proper order, from battery ground to the firing order of a 1973 Chevrolet engine.
none;open-ended;persons interested in automobile mechanics

BATTERY IGNITION SYSTEM (cha35;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the battery ignition system through discussion of high and low voltage, and schematic drawings and symbols.
none;none;persons interested in automobile mechanics

CRANKING MOTORS (cha41;1980;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson discusses the purposes, the components, and the principles of operation of an automotive starting system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

ELECTRONIC IGNITION SYSTEM (cha31;1973;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents the principles of operation and components of an electronic ignition system. Questions are provided for the student's review.
none;none;persons interested in automobile mechanics

ELECTRONIC SCOPE PATTERNS (sun;1976;unpublished)
Tom Black
Chanute Air Force Base, Illinois
This lesson is designed to assist students of automobile mechanics in electronic scope pattern identification and interpretation, which is essential for maintenance of the ignition system.
none;none;persons interested in automobile mechanics

IGNITION PATTERNS (cha42;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automobile ignition patterns, relative components, circuit malfunctions and the use of the oscilloscope for the diagnosis of common malfunctions.
none;none;persons interested in automobile mechanics

IGNITION SYSTEM SCHEMATIC AND SYMBOLS (cha94;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson presents the student with the symbols for each component in an automotive battery ignition system and also teaches the student to diagram the ignition wiring system. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Ignition--Testing

AUTOMOTIVE OSCILLOSCOPE (cha60;1974;unpublished)
Forrest Danner, John Predmore
Chanute Air Force Base, Illinois
This lesson diagrams the automotive oscilloscope and teaches the student to identify the purpose of each control.
touch panel;none;persons interested in automobile mechanics

IGNITION PATTERNS (cha42;1973;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automobile ignition patterns, relative components, circuit malfunctions and the use of the oscilloscope for the diagnosis of common malfunctions.
none;none;persons interested in automobile mechanics

Automobiles--Lighting

LIGHTING SYSTEMS (cha49;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of vehicle lighting systems. In addition to exterior and interior lights, wiring and control switches are discussed.
none;none;persons interested in automobile mechanics

Automobiles--Lubrication

AUTOMOTIVE ENGINE LUBRICATION SYSTEM (cha8;1972;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and principles relating to the operation of engine lubricating systems.
none;none;persons interested in automobile mechanics

Automobiles--Maintenance and repair

ELECTRIC FUNDAMENTALS (elecfund1;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson presents basic facts and general principles of electricity, including electron theory, series circuits, parallel circuits, series-parallel circuits, laws concerning voltage, current and resistance, and magnetism and induction.
none;none;persons interested in automobile mechanics

PARALLEL CIRCUITS (elecfund3;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those parallel circuits relative to automobiles.
none;none;persons interested in automobile mechanics

SERIES CIRCUITS (elecfund2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those series circuits relative to automobiles.
none;none;persons interested in automobile mechanics

STARTER MOTOR DIAGNOSIS GAME (cha34;1973;unpublished)
Jan Dallman, K J Wigton
Chanute Air Force Base, Illinois
In this simulation the student asks questions which aid in the diagnosis of an automotive malfunction.
none;none;persons interested in automobile mechanics

Automobiles--Motors

CRANKING MOTORS (cha41;1980;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson discusses the purposes, the components, and the principles of operation of an automotive starting system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

ENGINE CLASSIFICATION (cha1;1972;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson teaches the student to identify automotive engines according to the type of fuel used, number of strokes per cycle, method of cooling, block design, and valve arrangement.
microfiche;none;persons interested in automobile mechanics

GASOLINE ENGINE PRINCIPLES (cha91;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson defines and illustrates the basic operating principles of gasoline engines.
none;none;persons interested in automobile mechanics

IDENTIFICATION OF THE PARTS OF A GAS ENGINE (cha12;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois
In the first part of the lesson the student is presented with cutaway views of a gasoline engine and is asked to identify the basic components. Then the student is asked to match the components with a description of their purpose.
none;none;persons interested in automobile mechanics

INTRODUCTION TO ENGINE PARTS (cha2;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson teaches the student to understand and recognize the most visible automobile engine parts. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

Automobiles--Motors (Diesel)

COMPRESSION IGNITION ENGINES (cha74;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of compression engines, commonly referred to as diesel engines.
none;none;persons interested in automobile mechanics

Automobiles--Motors--Air filters

AIR AND EXHAUST SYSTEMS (cha50;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson provides a discussion of the basic facts and principles relating to the operation of air and exhaust systems. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

Automobiles--Motors--Carburetors
AIR AND EXHAUST SYSTEMS (cha50;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson provides a discussion of the basic facts and principles relating to the operation of air and exhaust systems. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

CARBURETOR DRILL (cha23;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This exercise presents the automotive carburetor by individual circuits. Problems with each circuit are added and the user is able to practice diagnosing the problems.
none;none;persons interested in automobile mechanics

Automobiles--Motors--Cooling
AUTOMOTIVE COOLING SYSTEM (cha5;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson provides the student with the knowledge necessary to identify correctly all of the components of a cooling system and to describe the purpose of each component.
none;none;persons interested in automobile mechanics

Automobiles--Motors--Maintenance and repair
STARTER MOTOR DIAGNOSIS GAME (cha34;1973;unpublished)
Jan Dallman, K J Wigton
Chanute Air Force Base, Illinois
In this simulation the student asks questions which aid in the diagnosis of an automotive malfunction.
none;none;persons interested in automobile mechanics

Automobiles--Motors--Valves
VALVE TRAIN MECHANISMS (cha18;1973;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson treats the mechanical and hydraulic valve operating system and discusses timing chains, camshafts, lifters, push rods, and valves.
none;none;persons interested in automobile mechanics

Automobiles--Radiators

AUTOMOTIVE COOLING SYSTEM (cha5;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson provides the student with the knowledge necessary to identify correctly all of the components of a cooling system and to describe the purpose of each component.
none;none;persons interested in automobile mechanics

Automobiles--Shock absorbers

OPERATING PRINCIPLES OF FRONT AND REAR SUSPENSION (cha89;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of the front and rear automobile suspension systems, including springs, spring hangers and shackles, frame and axle, and shock absorbers.
none;none;persons interested in automobile mechanics

Automobiles--Springs and suspension

OPERATING PRINCIPLES OF FRONT AND REAR SUSPENSION (cha89;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of the front and rear automobile suspension systems, including springs, spring hangers and shackles, frame and axle, and shock absorbers.
none;none;persons interested in automobile mechanics

Automobiles--Steering-gear

MECHANICAL STEERING SYSTEM (cha121;1975;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses the relationship of basic facts and general operating principles of automotive mechanical steering systems. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

POWER STEERING PRINCIPLES (cha96;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson provides information on automotive power steering principles. A test follows the instruction.
none;none;persons interested in automobile mechanics

Automobiles--Tires

STEERING FACTORS (cha99;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the importance of proper wheel alignment to the steering system and tire wear patterns. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

Automobiles--Transmission devices, Automatic

PRINCIPLES OF OPERATION OF THE AUTOMATIC TRANSMISSION (cha73;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of fluid couplings, torque converters and automatic transmissions.
none;none;persons interested in automobile mechanics

TRANSFER CASES/POWER TAKE-OFF (cha86;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson treats the basic facts and principles of transfer cases and power take-off units.
none;none;persons interested in automobile mechanics

Automobiles--Wheels--Alignment

STEERING FACTORS (cha99;1974;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson discusses the importance of proper wheel alignment to the steering system and tire wear patterns. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

Bearings (Machinery)

U-JOINTS AND PROPELLER SHAFTS (cha82;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the basics and operating principles of propeller shafts, universal joints, center bearings and slip joints.
none;none;persons interested in automobile mechanics

Binary system (Mathematics)

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City

Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.

none;60 minutes;general

INTRODUCTION TO BINARY CODES (afs5;1975,81;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City

In this lesson the student will learn to identify, encode, decode and/or perform conversions on different types of code used by Federal Aviation Administration equipment. The codes treated are: NBCD, Gray, EBCDIC, ASCII, 1050 Keyboard, IBM Keyboard, IBM card, Baudot. There is a quiz at the end of the lesson.

none;30 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City

After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.

none;30 minutes;students of electronics

NUMBER SYSTEMS (afs2;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City

In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.

none;30 minutes;students of electronics

Biological chemistry

ENZYME KINETICS (uiccbio4;1975;unpublished)
Stephen E Gruninger
Department of Biological Sciences, U of I, Chicago

This lesson discusses biological enzyme-catalyzed reactions with inhibition and Lineweaver-Burk analyses.

none;none;undergraduate and graduate students of biochemistry

s40

GEL FILTRATION (gelfil;1976;unpublished)
Bob Belas
University of Connecticut Health Center
This lesson provides an introduction to the theory and practical aspects of protein separation.
none;none;medical and laboratory technologists and persons

TRANSCRIPTIONAL CONTROL: THE LACTOSE OPERON (geepsie;1978;unpublished)
Laurie E Shapiro
University of Connecticut School of Medicine
This is an interactive biochemical lesson that teaches basic concepts of transcriptional control, using the lactose operon as the model.
none;15-20 minutes;medical students and biochemistry students

Biological chemistry--Examinations, questions, etc.

TRANSCRIPTIONAL CONTROL: THE LACTOSE OPERON (geepsie;1978;unpublished)
Laurie E Shapiro
University of Connecticut School of Medicine
This is an interactive biochemical lesson that teaches basic concepts of transcriptional control, using the lactose operon as the model.
none;15-20 minutes;medical students and biochemistry students

Biological transport

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.
none;none;physicians' assistants

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.
none;none;physicians' assistants

OXYGEN TRANSPORT (shp119;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.
none;none;physicians' assistants

THE NATURE OF HEMOGLOBIN (shp117;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson defines the terms used to describe the hemoglobin form and function and identifies the physical and chemical characteristics of the molecule. The details of hemoglobin interaction with oxygen and carbon dioxide in the blood are also presented.
none;none;physicians' assistants

Birth control

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson highlights select features pertinent to the use of some of the available contraceptive methods.
none;none;medical students and students of the health sciences

Bladder

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

Blood--Circulation

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION (shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.
none;none;physicians' assistants

CIRCULATION, NERVES, SALIVARY GLANDS (shp18;1974;unpublished)
David R Stutz, Brian Hasse
Sheppard Air Force Base, Texas
This lesson teaches the student to name and state the basic functions of salivary glands and associated arteries, veins, lymphatics and nerves. There is a quiz at the end.
none;none;dental assistants

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.
none;none;physicians' assistants

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
Hugh B Encinias
Sheppard Air Force Base, Texas
This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
none;none;persons interested in health science information

Blood--Circulation, Disorders of

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART II (shp121;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material explaining the formation of edema as found in systemic circulation.
none;none;physicians' assistants

ETIOLOGY OF THROMBOTIC EMBOLISM (shp48;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the abnormalities that initiate thrombosis.
none;none;physicians' assistants

MANAGEMENT OF PULMONARY EMBOLISM (shp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS (shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

Blood--Coagulation

BLOOD COAGULATION QUIZZES (bcoagl;1976;1981)
Lawrence J Adams
Peoria School of Medicine of the University of Illinois
This lesson tests the student's familiarity with the stages of blood coagulation and the associated factor names.
none;none;first year medical students

Blood--Coagulation--Examinations, questions, etc.

BLOOD COAGULATION QUIZZES (bcoagl;1976;1981)
Lawrence J Adams
Peoria School of Medicine of the University of Illinois
This lesson tests the student's familiarity with the stages of blood coagulation and the associated factor names.
none;none;first year medical students

Blood-vessels

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
Hugh B Encinias
Sheppard Air Force Base, Texas
This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
none;none;persons interested in health science information

Blood, Gases in

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.
none;none;physicians' assistants

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Arland W Eyl
Sheppard Air Force Base, Texas
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none;none;physicians' assistants

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Sheppard Air Force Base, Texas
In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.
none;none;physicians' assistants

THE NATURE OF HEMOGLOBIN (shp117;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson defines the terms used to describe the hemoglobin form and function and identifies the physical and chemical characteristics of the molecule. The details of hemoglobin interaction with oxygen and carbon dioxide in the blood are also presented.
none;none;physicians' assistants

Body fluids

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART I (shp105;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material that deals with the movement of fluids and protein molecules between the capillaries and the surrounding interstitial spaces.
none;none;physicians' assistants

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Computer-based Education
Research Laboratory

University of Illinois **Urbana Illinois**

CERL PLATO®
LESSON CATALOG

CURRICULAR AND UTILITY PROGRAMS
SUPPLEMENT NUMBER 1

DEBORAH S. POSTLEWAIT

NOVEMBER 1981

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART II (shp121;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material explaining the formation of edema as found in systemic circulation.
none;none;physicians' assistants

Boeing 727 (Jet transports)

BOEING-727 HYDRAULIC LEAK CHECKS: FLIGHT CONTROLS; TRAILING EDGE FLAPS (bo7271c3;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform an internal leak check of the 727 flight control hydraulic system using the controls and indicators in the cockpit, and to determine by observing hydraulic pressure variations, if any of the flight control hydraulic components are leaking and where in the sub-system the leak is occurring.
none;none;aviation mechanics

BOEING-727 HYDRAULIC LEAK CHECKS: INTRODUCTION TO BOEING-727 HYDRAULIC CONTROLS (bo7271c1;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform leak checks on the B-727 hydraulic system using the controls and indicators in the cockpit, identify components subjected to hydraulic leaks, and specify the appropriate action required to correct the hydraulic leaks.
none;none;aviation mechanics

BOEING-727 HYDRAULIC LEAK CHECKS: SYSTEM "B" PRESSURE CHECK; RELIEF VALVE AND BRAKE CHECK (bo7271c2;1977,81;unpublished)
Jerry Plemons, Gene Brown, Craig Burson
American Airlines / FAA Academy
This lesson teaches the user to perform the System "B" pump pressure and relief valve and brake checks, and to specify the appropriate action required to correct the hydraulic leaks.
none;none;aviation mechanics

727 FD108 FLIGHT DIRECTOR (fd108a;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to identify and locate the components associated with the 727 Flight Director.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - PROFICIENCY CHECK
(fd108d;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
This lesson provides a sequence of simulation exercises that provides the user with an opportunity to demonstrate skill in operating the FD108 flight director system, based on the "727 FD108 Flight Director" lessons.
none;none;student pilots

727 FD108 FLIGHT DIRECTOR - ABNORMAL OPERATIONS
(fd108c;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to recognize failure flags, identify the problem, and select the appropriate corrective action(s) required to reinstate the failed flight director system, where possible, in flight.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - NORMAL PROCEDURES
(fd108b;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user will be able to perform normal procedures in all modes of operation during exercises simulating operation of the Collins FD108.
none;none;student pilots

Bones

STRUCTURES AND FUNCTIONS OF THE SKELETAL SYSTEM
(shp289;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson describes the function of bones, and diagrams and labels the skeletal system. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

Books and reading

READSTAR (readstar;1981;unpublished)
James W Boyd, Mary Van De Warker, Peter Klassen
College of DuPage, Glen Ellyn, Illinois
An adaptation of the Star Readability Program developed by General Motors Corporation, the program evaluates writing based on that program. By using the grade level equivalent generated by the lesson the user may project the approximate reader difficulty in reading and understanding printed materials.
none;5-10 minutes;persons interested in the study of reading

Bronchitis

CHRONIC BRONCHITIS PART III (shp125;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson looks at the treatment of patients with chronic bronchitis.
none;none;physicians' assistants

CHRONIC BRONCHITIS PART II (shp123;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson presents the laboratory studies used to determine the severity of bronchitis.
none;none;physicians' assistants

Business education

Typewriting

SPEED TYPING (type;1980;unpublished)
Peter Zelchenko
City Colleges of Chicago
This typing lesson offers 25 simple words at a time to type for practice.
none;open-ended;general

TYPING (patterns;1981;unpublished)
Andrew Shapira
University of Illinois
This lesson contains six tests of typing skill with personal records kept for each. In some tests the Dvorak Simplified Keyset is available. An overall ranking system exists for comparison.
none;open-ended;general

Calipers

READING THE MICROMETER CALIPER (abe4;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the parts of a micrometer and to interpret the readings of a micrometer. The student may choose to take a pretest or to take a test at the end of the lesson.
none;60 minutes;vocational students

Capillaries

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION (shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.
none;none;physicians' assistants

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.
none;none;physicians' assistants

Carburetors

CARBURETOR DRILL (cha23;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This exercise presents the automotive carburetor by individual circuits. Problems with each circuit are added and the user is able to practice diagnosing the problems.
none;none;persons interested in automobile mechanics

Cardiac catheterization

ANALYSIS OF CARDIAC CATHETERIZATION DATA (cathdata;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
Given numerical values, this lesson provides a "computer" that analyzes cardiac catheterization data.
none;none;physicians' assistants

Cardiovascular system

ANALYSIS OF CARDIAC CATHETERIZATION DATA (cathdata;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
Given numerical values, this lesson provides a "computer" that analyzes cardiac catheterization data.
none;none;physicians' assistants

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
Hugh B Encinias
Sheppard Air Force Base, Texas
This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
none;none;persons interested in health science information

Cataloging of medical literature

AN INTRODUCTION TO MEDICAL LIBRARY CATALOGING (micc;1976;1981)
Phyllis C Self, Diane E Northup, K Gaburo
Health Sciences Library, University of Illinois
The purpose of this lesson is to demonstrate the organization and the usefulness of the card catalog at the Library of Health Sciences. Though some material is specific to the University of Illinois library, several concepts are of general interest.
none;none;students of medicine and health sciences

Cell membranes

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

AN INTRODUCTION TO ACTION POTENTIALS (neurophysl;1978;1981)
Eric Jakobsson, Michael Green
School of Basic Medical Science, Univ. of Illinois
This lesson treats the structure of the neuron, the permeability of biological membranes, the movement of ions across membranes, the resting membrane potential and the action potential and its propagation. A glossary of terms is provided.
none;none;first year medical students

Cells

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

ORGANIZATION OF THE HUMAN BODY (shp279;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson defines anatomy, physiology, and anatomical position, and provides descriptions of cell, tissues, membranes, organs and systems of the body. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

Cells--Permeability

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

Chemical reaction, Rate of

ENZYME KINETICS (uiccbio4;1975;unpublished)
Stephen E Gruninger
Department of Biological Sciences, U of I, Chicago
This lesson discusses biological enzyme-catalyzed reactions with inhibition and Lineweaver-Burk analyses.
none;none;undergraduate and graduate students of biochemistry

Chemistry, General

PROPERTIES OF MATTER: DENSITY (density;1977;unpublished)
Carolynn Moore
Chemistry Department, University of Illinois
This lesson treats the property of matter called density. The student learns what kinds of conclusions can be drawn about a material by knowing its density.
none;none;college/university students of beginning chemistry

Chemistry, Organic

Nomenclature and structure

ALKANE NOMENCLATURE (alkchem;1980;1981)
Doris C Blumenthal, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson provides practice in the naming of alkane molecules.
none;open-ended;students of medicine and the health sciences

ORGANIC NOMENCLATURE (orgnom;1980;unpublished)
Kenneth Kahn, Joseph Kaufman
College of Pharmacy, U of I Medical Center
This lesson tests the student's ability to name a chemical compound given its structural formula. The convention used is that of the International Union of Pure and Applied Chemistry.
none;open-ended;students of medicine and the health sciences

China

CHINA STUDY TOUR (chinast;1980;unpublished)
Ralph E Schooley
Medical Computing Laboratory, University of Illinois
This lesson documents a tour of China made by members of the University of Illinois College of Medicine in order to observe clinical medicine practices, medical research methods, and medical education facilities in the People's Republic. Many of the interesting extracurricular aspects of the tour are included in the presentation.
optional touch panel;none;general

Chinese language--Study and teaching

EAST ASIAN POCKET CALCULATOR (kazoeru;1979;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
With this lesson the student can practice Japanese number expressions with a simulated pocket calculator. The register shown on the screen displays Chinese characters. The student selects the level of difficulty of the problems. Specific corrective feedback is given for all possible errors. The lesson also works in Mandarin Chinese.
touch panel;open-ended;general

Chronic diseases

CHRONIC BRONCHITIS PART II (shp123;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson presents the laboratory studies used to determine the severity of bronchitis.
none;none;physicians' assistants

CHRONIC BRONCHITIS PART III (shp125;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson looks at the treatment of patients with chronic bronchitis.
none;none;physicians' assistants

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

Cities and towns--Planning

C. D. CONSULTANT (INTRODUCTION TO COMMUNITY DEVELOPMENT)
(cdcons;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

This lesson treats the subject of community development as a change process aimed at comprehensive problem-solving on the community level through programs which encourage citizen participation, self-help, and decentralization.

none;none;persons interested in community development

THE NUCLEAR ENERGY PROBLEM (cdcons3;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

In the second of three community development problems, the student must decide how to solve the problem of whether or not to build a nuclear power plant.

none;none;persons interested in community development

THE STREET RELOCATION CONTROVERSY (cdcons4;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

This lesson, the last of three problems in community development, simulates city council activity and offers the student practice involving planned change.

none;none;persons interested in community development

THE YOUTH PROBLEM (cdcons2;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

This lesson provides the first of three community development problems and offers the student the opportunity to do something about the wave of vandalism and delinquency in the town of Communitopia.

none;none;persons interested in community development

Classical mechanics--Problems, exercises, etc.

A MULTIPLE CHOICE QUIZ IN ELEMENTARY PHYSICS
(quiz;1976;unpublished)
Thomas Lemberger, Dennis Kane
Physics Department, University of Illinois, Urbana

This quiz in elementary physics provides 20 multiple-choice questions. The student is allowed one or two chances to correctly answer them.

none;none;students of elementary physics

THE APPROACH TO MECHANICS PROBLEMS (phquiz;1978;unpublished)
Daniel Beece
Physics Department, University of Illinois, Urbana
This lesson provides the student with practice in developing the ability to recognize the correct method or approach to solving a problem in physics.
touch panel;none;students of elementary physics

WHAT IS CONSERVED? (phcons;1978;unpublished)
Daniel Beece
Physics Department, University of Illinois, Urbana
This lesson gives the student the opportunity to develop the ability to recognize "what is conserved?", an important skill to have when solving problems in physics.
touch panel;none;students of elementary physics

Clutches (Machinery)

CLUTCHES (cha67;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson discusses the parts, assembly, and linkage of the automotive clutch.
none;none;persons interested in automobile mechanics

Color-sense

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.
none;none;students of optometry

Community development

C. D. CONSULTANT (INTRODUCTION TO COMMUNITY DEVELOPMENT) (cdcons;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois
This lesson treats the subject of community development as a change process aimed at comprehensive problem-solving on the community level through programs which encourage citizen participation, self-help, and decentralization.
none;none;persons interested in community development

THE NUCLEAR ENERGY PROBLEM (cdcons3;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

In the second of three community development problems, the student must decide how to solve the problem of whether or not to build a nuclear power plant.

none;none;persons interested in community development

THE STREET RELOCATION CONTROVERSY (cdcons4;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois

This lesson, the last of three problems in community development, simulates city council activity and offers the student practice involving planned change.

none;none;persons interested in community development

THE YOUTH PROBLEM (cdcons2;1979;unpublished)
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none;none;persons interested in community development

Composition (Music)

WELT - WELL TEMPERED FREQUENCY RATIOS FOR VARIABLE DIVISIONS OF THE OCTAVE (welt;1980;unpublished)
William Schaeffer
University of Illinois

The purpose of this lesson is to allow the user to calculate the frequency ratios of the notes of the scales that divide the octave into any number of well tempered divisions and to compare these with the frequency ratios of the just tempered scale. Help is available.

may be used with the music box;open-ended;students of music

Computer engineering

FLIP-FLOPS I (afs12;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City

In this lesson the student will learn to use flip-flop symbols, states and terminology, and to identify and describe the functions of the following flip-flop types used in FAA equipment: R-S, R-S-T, R-S Clock, Cross-Coupled NAND Gate, D. There is a quiz at the end.

none;45 minutes;students of electronics

FLIP-FLOPS II (afs13;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student will learn to use flip-flop symbols, states and terminology, and to identify and describe the functions of the following flip-flop types used in FAA equipment: J-K, J-K Master-Slave, IBM Type, IBM Flip-Latch, IBM Polarity Hold, Single Shot Multivibrator. There is a quiz at the end.
none;45 minutes;student of electronics

INTRODUCTION TO BINARY CODES (afs5;1975,81;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student will learn to identify, encode, decode and/or perform conversions on different types of code used by Federal Aviation Administration equipment. The codes treated are: NBCD, Gray, EBCDIC, ASCII, 1050 Keyboard, IBM Keyboard, IBM card, Baudot. There is a quiz at the end of the lesson.
none;30 minutes;general

REGISTERS (afs15;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to identify and describe the action of serial and parallel registers and apply digital logic theory and principles in order to perform simulated maintenance on digital equipment utilizing combinations of serial and parallel registers. There is a quiz at the end of the lesson.
none;45 minutes;students of electronics

Computer programs

THE VSM COMPUTER (vsm;1974;unpublished)
Richard S Trynda
School of Veterinary Medicine, Univ. of Illinois
This lesson contains a simulation of a limited capacity but functional computer. It allows the user to observe the readin and execution of demonstration programs in a simplified manner. The user's own programs can be written and their readin and execution observed.
none;none;persons interested in computer programming

Computer simulation

THE VSM COMPUTER (vsm;1974;unpublished)
Richard S Trynda
School of Veterinary Medicine, Univ. of Illinois

This lesson contains a simulation of a limited capacity but functional computer. It allows the user to observe the readin and execution of demonstration programs in a simplified manner. The user's own programs can be written and their readin and execution observed.

none;none;persons interested in computer programming

Conception--Prevention

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois

This lesson highlights select features pertinent to the use of some of the available contraceptive methods.

none;none;medical students and students of the health sciences

Condoms

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois

This lesson highlights select features pertinent to the use of some of the available contraceptive methods.

none;none;medical students and students of the health sciences

Contact dermatitis

CONTACT DERMATITIS (shp130;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

This lesson discusses the immune response that causes contact dermatitis.

none;none;physicians' assistants

Contact lenses

EVERYTHING YOU WANTED TO KNOW ABOUT CONTACT LENSES BUT WERE AFRAID TO ASK (shp250;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson begins with a discussion of the types of Air Force personnel eligible for contact lens exams and contact lenses. The manufacture, modification and measure of lenses are treated as well as proper hygiene, insertion and removal techniques. Additionally, the advantages and disadvantages of hard and soft lenses are presented.

none;none;students of optometry

Contrast media

CLASSIFICATION OF CONTRAST MEDIA (shp147;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the classification of contrast media by positive or negative catagories, and by group names: alimentary tract radiopaques, cholecystopaques, water soluble radiopaques and viscous and/or oily radiopaques.
microfiche;none;x-ray technicians

CONTRAST MEDIA AND PHOTON ABSORPTION (shp135;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the process by which contrast media improve visualization of soft tissue structures. There is an exercise at the end of the lesson.
microfiche;none;x-ray technicians

CONTRAST MEDIA AND THEIR APPLICATIONS (shp134;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the purpose of contrast media and their effect on the selective absorption of x-radiation by a structure, and identifies the type of contrast media appropriate for specific procedures.
none;none;x-ray technicians

EMERGENCY TREATMENT OF PATIENT REACTIONS TO CONTRAST MEDIA (shp138;1976;1981)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson teaches the student to identify the signs and symptoms of histamine imbalance and hemodynamic reactions. The emergency tray and the responsibilities and limitations of the x-ray technician are also described.
none;none;x-ray technicians

WATER SOLUBLE RADIOPAQUES (shp148;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the largest, most versatile group of contrast media, the water soluble radiopaques.
microfiche;none;x-ray technicians

Cranks and crankshafts

CRANKING MOTORS (cha41;1980;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson discusses the purposes, the components, and the principles of operation of an automotive starting system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

Culture contamination (Biology)

THE CASE OF THE CONTAMINATED CULTURES (iodine;1980;1981)
Allan H Levy
School of Basic Medical Sciences, Univ. of Illinois
This lesson presents a very brief discussion of contaminated blood cultures in hospital situations.
none;5-10 minutes;medical students

Decimal system

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.
none;60 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.
none;30 minutes;students of electronics

NUMBER SYSTEMS (afs1;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.
none;30 minutes;students of electronics

Dental anatomy

TOOTH ANATOMY (shp32;1974;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
In this introductory lesson the student will learn four basic anatomical terms used in dentistry.
none;none;dental assistants

Dentistry--Study and teaching

DENTITION (shp115;1975;unpublished)
Daniel L Henkel, R M Kimball
Sheppard Air Force Base, Texas

In this lesson the student will learn to name the teeth and identify them using the Air Force numbering system. The eruption schedules for both permanent and deciduous teeth will be discussed. Additionally, the largest, smallest and longest, as well as the surfaces of the teeth, will be identified. There is a quiz at the end.

none;none;dental assistants

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas

This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.

none;none;dental assistants

SALIVA (shp198;1977;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

This lesson discusses saliva and its functions in the mouth as it digests starches, enchances taste, cleans and lubricates.

none;none;dental assistants

TOOTH ANATOMY (shp32;1974;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

In this introductory lesson the student will learn four basic anatomical terms used in dentistry.

none;none;dental assistants

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none;none;dental assistants

Diagnosis

ASTHMA (shp101;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
In this lesson the student will learn to identify the symptoms of asthma and etiologic (causative) factors. Additionally, the user will become familiar with the modes of therapy for asthma and, given a specific patient, prescribe the appropriate therapy.
none;none;physicians' assistants

CHRONIC BRONCHITIS PART II (shp123;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson presents the laboratory studies used to determine the severity of bronchitis.
none;none;physicians' assistants

LATENT IMAGE PATIENT PROBLEM (shp27;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson offers a simulation in which a 34 year old female Air Force nurse is seen in a walk-in clinic because of dyspnea. The student must gather history, physical and laboratory data, make a diagnosis and prescribe the correct measures to be taken.
none;none;physicians' assistants

UPPER AIRWAY DISEASE PART 2 (shp36;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson simulates a physical examination that concentrates on the nose and nasal passageways, the chest, the ears, and the nasopharynx and oropharynx. The student is asked questions along the way to test his or her understanding of the material.
none;none;physicians' assistants

Diaphragms, Vaginal

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson highlights select features pertinent to the use of some of the available contraceptive methods.
none;none;medical students and students of the health sciences

Diesel motor
COMPRESSION IGNITION ENGINES (cha74;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of compression engines, commonly referred to as diesel engines.
none;none;persons interested in automobile mechanics

Diesel motor--Fuel system
COMPRESSION IGNITION ENGINES (cha74;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of compression engines, commonly referred to as diesel engines.
none;none;persons interested in automobile mechanics

Diesel motor--Maintenance and repair
COMPRESSION IGNITION ENGINES (cha74;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of compression engines, commonly referred to as diesel engines.
none;none;persons interested in automobile mechanics

Diet
DIETARY ANALYSIS (dianal;1976;unpublished)
Frances M LaFont
School of Human Resources and Family Studies, U of I
This lesson provides experience in analyzing diets for nutrient content.
none;open-ended;nutrition students

Dietaries
DIETITIANS' CALCULATIONS (shp35;1974;unpublished)
R M Kimball
Sheppard Air Force Base, Texas
This lesson calculates dietary information needed by dietitians, based on meal distribution or nutrient calculations.
none;open-ended;dietitians

Digital electronics
FLIP-FLOPS I (afs12;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student will learn to use flip-flop symbols, states and terminology, and to identify and describe the functions of the following flip-flop types used in FAA equipment: R-S, R-S-T, R-S Clock, Cross-Coupled NAND Gate, D. There is a quiz at the end.
none;45 minutes;students of electronics

FLIP-FLOPS II (afs13;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student will learn to use flip-flop symbols, states and terminology, and to identify and describe the functions of the following flip-flop types used in FAA equipment: J-K, J-K Master-Slave, IBM Type, IBM Flip-Latch, IBM Polarity Hold, Single Shot Multivibrator. There is a quiz at the end.
none;45 minutes;student of electronics

INTRODUCTION TO BINARY CODES (afs5;1975,81;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student will learn to identify, encode, decode and/or perform conversions on different types of code used by Federal Aviation Administration equipment. The codes treated are: NBCD, Gray, EBCDIC, ASCII, 1050 Keyboard, IBM Keyboard, IBM card, Baudot. There is a quiz at the end of the lesson.
none;30 minutes;general

REGISTERS (afs15;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to identify and describe the action of serial and parallel registers and apply digital logic theory and principles in order to perform simulated maintenance on digital equipment utilizing combinations of serial and parallel registers. There is a quiz at the end of the lesson.
none;45 minutes;students of electronics

Division

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

THE FOURS PROBLEM (fourprob;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Drugs

ACTIONS AND USES OF OPHTHALMODIAGNOSTIC DRUGS (shp238;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson discusses the effect drugs have on the nervous system. Drugs that are commonly found in an optometry clinic are covered also, with the concentration being on ophthalmodiagnostic drugs.
none;none;students of optometry

MEDICAL CENTER (medcentr;1979;1981)
David E Trachtenbarg, Stephen C Doughty
School of Basic Medical Sciences, Univ. of Illinois
This lesson simulates the effects of diseases on different organ systems in the human body, the use of immunizations, and drug costs. Extensive help is available.
none;open-ended;first year medical students

PHARMACOLOGY (shp189;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides some basic facts and principles related to pharmacology, sources of drug information, properties of drugs, and the proper handling of controlled drugs.
none;none;pharmacists' assistants

PHARMER - A GAME FOR PHUN WITH PHARMACY (pharmer;1980;unpublished)
Randall Lambert, Charles Guerra, Harlan McDaniel
College of Pharmacy, U of I Medical Center
This lesson is designed especially for students of pharmacy and other health professions who will come into contact with the use of drugs in the course of their professional practices. Pharmaceutical abbreviations, generic names and trade names are covered.
none;open-ended;students of pharmacy and health professions

Drugs--Dosage

EFFECTS OF DOSES, DOSING INTERVAL, AND INDIVIDUAL PARAMETERS STEADY STATE PLASM DRUG PROFILES (doses;1980;1981)
Paul Lasker, Paul Resch
College of Pharmacy, U of I Medical Center
This lesson provides a graphic display of the effects of varying dosages of drugs.
none;open-ended;students of medicine and health sciences

PHARMACOKINETICS CALCULATIONS (pkinmod;1980;unpublished)
Tobias Yeh, Joseph Kaufman, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson calculates dose, dosing level and level of drug in the body for 194 drugs.
none;open-ended;students of medicine and the health sciences

Dynamos--Alternating current

ALTERNATOR CHARGING SYSTEMS (cha47;1973;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson teaches component identification and the operating principles of the automotive alternator and the alternator regulator. Drills are provided for student practice.
none;none;persons interested in automobile mechanics

AUTOMOTIVE A. C. CHARGING SYSTEM (cha20;1973;unpublished)
Mel Marcus
Chanute Air Force Base, Illinois
This lesson teaches component identification and operating principles of the alternator and alternator regulator, main areas of the automotive alternating current charging system.
microfiche;none;persons interested in automobile mechanics

Dynamos--Direct current

THE D. C. GENERATOR (cha33;1973;unpublished)
Perry S Main
Chanute Air Force Base, Illinois
This lesson covers the functions and principles of operation of eight major components of the direct current generator. A test follows the instruction.
none;none;persons interested in automobile mechanics

Ear--Anatomy

STRUCTURE AND FUNCTIONS OF THE EAR (shp45;1979;unpublished)
Richard L Mosley, Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson diagrams and discusses the structure and functions of the outer, middle, and inner ear.
none;none;students of the health sciences

Edema

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART II (shp121;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material explaining the formation of edema as found in systemic circulation.
none;none;physicians' assistants

Editor programs

PLATO

GROUP DATA RECORD EDITOR (dataed;1981;unpublished)

Brent R Sweeny

Indiana University, College of Arts and Sciences

This lesson enables the user to efficiently (using minimal computer memory) inspect or edit "data" records attached to a group. There are options to add or change names or records, as well as their contents, in alpha, floating, integer, octal or signed/unsigned segment modes. Help is available throughout.

none;open-ended;PLATO authors and instructors

Educational games

Automobile mechanics

BATTERY IGNITION GAME (cha61;1974;unpublished)

K J Wigton, Peggy McClintock

Chanute Air Force Base, Illinois

This lesson provides a game for the review of the firing order of battery ignition. The objective of the game is to align the ignition components to show the proper order, from battery ground to the firing order of a 1973 Chevrolet engine.

none;open-ended;persons interested in automobile mechanics

STARTER MOTOR DIAGNOSIS GAME (cha34;1973;unpublished)

Jan Dallman, K J Wigton

Chanute Air Force Base, Illinois

In this simulation the student asks questions which aid in the diagnosis of an automotive malfunction.

none;none;persons interested in automobile mechanics

Languages

HIRAGANA REVIEW (hiragana;1978;unpublished)

J Marshall Unger

E. Asian Languages, University of Hawaii, Manoa

This lesson offers activities for review of hiragana which beginning students can use regardless of the textbook they may be using. It includes a presentation on Iroha Uta, Roman-to-hiragana conversion, an hiragana review game, and practice with modified Japan Industrial Standard keyset input.

none;open-ended;first year students of Japanese

JAPANESE BINGO (jbingo;1978;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
Originally created by Marshall Midden and Kevin Nortrup, this bingo game has been adapted to Japanese. Any number of students can play this inter-terminal game simultaneously. Each user can choose to use hiragana, katakana, or an assortment of Chinese characters (kanji), depending on what aspect of Japanese orthography he or she wishes to review.
touch panel;open-ended;first year students of Japanese

ON LOCATION (doko;1981;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
Three different types of quizzes allow the student to review Japanese constructions which describe locations. All quizzes refer to a map of buildings whose identities change from game to game.
none;none;first year students of Japanese

SEKIGAHARA: A JAPANESE LANGUAGE REVIEW GAME (jgame;1978;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
In this lesson students compete in an interterminal game of strategy. Each move requires the input of two Japanese words from a set of 121 possibilities. Two different games can be played: numbers-and-counters and verb forms. The competing students do not have to play the same game.
none;open-ended;first year students of Japanese

SYOOGUN (syoogun;1980;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
This is a Monopoly-like game which one to four students can play simultaneously. In order to win yen, the students must answer simple questions in Japanese. Students can also play against Syoogun (Shogun), who never makes mistakes.
none;open-ended;first year students of Japanese

Medicine

MEDICAL CENTER (medcentr;1979;1981)
David E Trachtenbarg, Stephen C Doughty
School of Basic Medical Sciences, Univ. of Illinois
This lesson simulates the effects of diseases on different organ systems in the human body, the use of immunizations, and drug costs. Extensive help is available.
none;open-ended;first year medical students

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Music

SIMON (simon;1980;unpublished)
Daniel R LaBerge
University of Illinois
Simon is a music game for the Gooch Synthetic Woodwind. PLATO plays a sequence of notes and the user must play the same sequence back to PLATO. There are three levels of difficulty from which to choose.
Gooch Synthetic Woodwind;open-ended;general

Pharmacy

PHARMER - A GAME FOR PHUN WITH PHARMACY (pharmer;1980;unpublished)
Randall Lambert, Charles Guerra, Harlan McDaniel
College of Pharmacy, U of I Medical Center
This lesson is designed especially for students of pharmacy and other health professions who will come into contact with the use of drugs in the course of their professional practices. Pharmaceutical abbreviations, generic names and trade names are covered.
none;open-ended;students of pharmacy and health professions

Physics

PHYSSLE! A GAME FOR PHYSICS PHANS (physfun;1980;unpublished)
Howard Balfour, Charles Guerra
College of Pharmacy, U of I Medical School
This interterminal physics game drills the student on unit abbreviations, unit names, physics symbols, unit conversions, concepts and their units, and units with their concepts.
none;open-ended;students of physics

Typewriting

SPEED TYPING (type;1980;unpublished)
Peter Zelchenko
City Colleges of Chicago
This typing lesson offers 25 simple words at a time to type for practice.
none;open-ended;general

TYPING (patterns;1981;unpublished)
Andrew Shapira
University of Illinois
This lesson contains six tests of typing skill with personal records kept for each. In some tests the Dvorak Simplified Keyset is available. An overall ranking system exists for comparison.
none;open-ended;general

Elasticity

GRAPHING EXPERIMENTAL DATA PART I: WEIGHTS ON A SPRING (wtgraph;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Stephen Peltz
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson provides an experiment in which the student measures and compares the elasticity of three different springs.
none;none;high school students

Electric circuits

APPLICATIONS OF MAGNETISM (elecfund5;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses some of the different mechanical and electrical ways in which magnetism is used.
none;none;persons interested in automobile mechanics

ELECTRIC FUNDAMENTALS (elecfund1;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson presents basic facts and general principles of electricity, including electron theory, series circuits, parallel circuits, series-parallel circuits, laws concerning voltage, current and resistance, and magnetism and induction.
none;none;persons interested in automobile mechanics

ELECTRICAL SCHEMATICS (cha77;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents 28 possible components of electrical systems through electrical schematics and diagrams. There is a quiz at the end of the lesson.
none;none;persons interested in automobile mechanics

PARALLEL CIRCUITS (elecfund3;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those parallel circuits relative to automobiles.
none;none;persons interested in automobile mechanics

RC CIRCUITS -- TRANSIENT ANALYSIS (rctrans;1980;unpublished)
Larry Hayes, Rudy Escobedo, George Francis
Federal Aviation Administration Academy, Oklahoma City
After completing this lesson, given a schematic diagram of an RC circuit and component values, the student should be able to calculate tau, effective voltage, and the capacitor voltage at various time constants. Practice problems are included.
none;30 minutes;students of electronics

SERIES CIRCUITS (elecfund2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson provides basic information on those series circuits relative to automobiles.
none;none;persons interested in automobile mechanics

USE OF THE SIMPSON MULTIMETER TO MEASURE DC CURRENT (san21;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter for measuring current flow when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USE OF THE SIMPSON MUTLIMETER TO MEASURE RESISTANCE (san5;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the Simpson multimeter to measure resistance when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USING THE SIMPSON MULTIMETER TO MEASURE VOLTAGES (san39;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter to measure voltage when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

VOLTAGE IN SERIES CIRCUITS (san46;1977;unpublished)
Jim Coady, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson teaches Kirchoff's voltage laws. The first law refers to the sum of the voltage drops in a series circuit. The second law concerns voltage drops across resistances of various values in a series circuit. At the end of the lesson there is a progress check.
none;none;students of electronics

VOLTAGE, CURRENT, RESISTANCE AND SERIES CIRCUITS
(gpelec2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses the following topics relative to the automobile: voltage, current, and resistance, and their measurement; series circuits.
none;none;persons interested in automobile mechanics

Electric currents
CURRENT, VOLTAGE AND RESISTANCE (cha38;1973;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson defines and illustrates the concepts of current, voltage and resistance. There is also a drill on the names of electrical units.
none;none;persons interested in automobile mechanics

Electric engineering
Electric networks
RC CIRCUITS -- TRANSIENT ANALYSIS (rctrans;1980;unpublished)
Larry Hayes, Rudy Escobedo, George Francis
Federal Aviation Administration Academy, Oklahoma City
After completing this lesson, given a schematic diagram of an RC circuit and component values, the student should be able to calculate tau, effective voltage, and the capacitor voltage at various time constants. Practice problems are included.
none;30 minutes;students of electronics

Electric measurements
USE OF THE SIMPSON MULTIMETER TO MEASURE DC CURRENT
(san21;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter for measuring current flow when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USE OF THE SIMPSON MULTIMETER (san2;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson provides an introduction to the Simpson Multimeter lessons. It discusses the selection of subject matter, lesson content, student selection of lesson content, student status information, and the leaving of messages for for the lesson author. There is a post-lesson test to check the student's grasp of the material.
none;none;students of electronics

USE OF THE SIMPSON MUTLIMETER TO MEASURE RESISTANCE
(san5;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson is designed to help the user arrive at the proper connection of the Simpson multimeter to measure resistance when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.

none;none;students of electronics

USING THE SIMPSON MULTIMETER TO MEASURE VOLTAGES
(san39;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson is designed to help the user arrive at the proper connection of the meter to measure voltage when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.

none;none;students of electronics

VOLTAGE IN SERIES CIRCUITS (san46;1977;unpublished)
Jim Coady, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson teaches Kirchoff's voltage laws. The first law refers to the sum of the voltage drops in a series circuit. The second law concerns voltage drops across resistances of various values in a series circuit. At the end of the lesson there is a progress check.

none;none;students of electronics

Electric meters

USE OF THE SIMPSON MULTIMETER TO MEASURE DC CURRENT
(san21;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson is designed to help the user arrive at the proper connection of the meter for measuring current flow when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.

none;none;students of electronics

USE OF THE SIMPSON MUTLIMETER TO MEASURE RESISTANCE
(san5;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the Simpson multimeter to measure resistance when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USING THE SIMPSON MULTIMETER TO MEASURE VOLTAGES
(san39;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter to measure voltage when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

Electric networks

RC CIRCUITS -- TRANSIENT ANALYSIS (rctrans;1980;unpublished)
Larry Hayes, Rudy Escobedo, George Francis
Federal Aviation Administration Academy, Oklahoma City
After completing this lesson, given a schematic diagram of an RC circuit and component values, the student should be able to calculate tau, effective voltage, and the capacitor voltage at various time constants. Practice problems are included.
none;30 minutes;students of electronics

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Jim Coady, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson teaches Kirchoff's voltage laws. The first law refers to the sum of the voltage drops in a series circuit. The second law concerns voltage drops across resistances of various values in a series circuit. At the end of the lesson there is a progress check.
none;none;students of electronics

Electric resistance

CURRENT, VOLTAGE AND RESISTANCE (cha38;1973;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson defines and illustrates the concepts of current, voltage and resistance. There is also a drill on the names of electrical units.
none;none;persons interested in automobile mechanics

VOLTAGE, CURRENT, RESISTANCE AND SERIES CIRCUITS
(gpelec2;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses the following topics relative to the automobile: voltage, current, and resistance, and their measurement; series circuits.
none;none;persons interested in automobile mechanics

Electric wiring--Diagrams

ELECTRICAL SCHEMATICS (cha77;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson presents 28 possible components of electrical systems through electrical schematics and diagrams. There is a quiz at the end of the lesson.
none;none;persons interested in automobile mechanics

Electromagnetism

APPLICATIONS OF MAGNETISM (elecfund5;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses some of the different mechanical and electrical ways in which magnetism is used.
none;none;persons interested in automobile mechanics

INTRODUCTION TO MAGNETISM (elecfund4;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson teaches the basic principles of magnetism, treats its importance, and explains how magnets work. There is a quiz at the end.
none;none;persons interested in automobile mechanics

Electronics

RC CIRCUITS -- TRANSIENT ~~ANALYSIS~~ (rctrans;1980;unpublished)
Larry Hayes, Rudy Escobedo, George Francis
Federal Aviation Administration Academy, Oklahoma City
After completing this lesson, given a schematic diagram of an RC circuit and component values, the student should be able to calculate tau, effective voltage, and the capacitor voltage at various time constants. Practice problems are included.
none;30 minutes;students of electronics

USE OF THE SIMPSON MULTIMETER (san2;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson provides an introduction to the Simpson Multimeter lessons. It discusses the selection of subject matter, lesson content, student selection of lesson content, student status information, and the leaving of messages for for the lesson author. There is a post-lesson test to check the student's grasp of the material.
none;none;students of electronics

USE OF THE SIMPSON MULTIMETER TO MEASURE DC CURRENT (san21;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter for measuring current flow when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USE OF THE SIMPSON MUTLIMETER TO MEASURE RESISTANCE (san5;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the Simpson multimeter to measure resistance when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

USING THE SIMPSON MULTIMETER TO MEASURE VOLTAGES (san39;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter to measure voltage when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

VOLTAGE IN SERIES CIRCUITS (san46;1977;unpublished)
Jim Coady, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
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none;none;students of electronics

Embolism

ETIOLOGY OF THROMBOTIC EMBOLISM (shp48;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the abnormalities that initiate thrombosis.
none;none;physicians' assistants

MANAGEMENT OF PULMONARY EMBOLISM (shp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

Emphysema, Pulmonary

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

Employment interviewing

PREPARING FOR YOUR INTERVIEW (prepare;1981;unpublished)
Lisa Patchner, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson provides the user with much useful information on preparing for a job interview.
touch panel;none;general

Endocrine gynecology

GYNECOLOGIC ENDOCRINOLOGY (gynendo;1979,80;unpublished)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to acquaint the student with the clinical presentations of gynecologic endocrine-type abnormalities as well as to delineate the etiology of the abnormalities and to outline the various management possibilities. A glossary is available.
none;none;medical students and students of the health sciences

Endocrinology

GYNECOLOGIC ENDOCRINOLOGY (gynendo;1979,80;unpublished)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois

This lesson is designed to acquaint the student with the clinical presentations of gynecologic endocrine-type abnormalities as well as to delineate the etiology of the abnormalities and to outline the various management possibilities. A glossary is available.

none;none;medical students and students of the health sciences

English language

Composition and exercises

REPAIRING SENTENCE FRAGMENTS (iusent;1979,80;unpublished)
Brent R Sweeny, Karl E Lehenbauer
Indiana University, College of Arts and Sciences

This lesson begins with a short review of the "basic needs" of a sentence: subject, verb, and completeness of idea, represented by a dependent clause standing alone. The role of the period is also emphasized. There are short drills illustrating the different problems and their "repairs".

none;30 minutes;high school/university writing students

SENTENCE LOGIC (iulogic;1979;unpublished)
Kenneth M Koester, Anthony Tomasic
Indiana University, College of Arts and Sciences

This lesson teaches fundamental concepts in sentence logic. Sound logic, metaphors, and relationships are studied with a paragraph exercise at the end to ingrain ideas covered.

none;45 minutes;college freshman

TRANSITIONS (iutrans;1979,80;unpublished)
Brent R Sweeny, Kurt A Kahlo
Indiana University, College of Arts and Sciences

This lesson provides discussion of the uses and importance of transitions, with examples indicating how different transitions change the meanings of sentences. Various transitional devices and stategies are also mentioned, in addition to providing lists of words and phrases and practice using them.

none;30 minutes;advanced high school/university writing students

Grammar

PRONOUN REFERENCE (iupron;1979;unpublished)
Kenneth M Koester, Eric Hagstrom
Indiana University, College of Arts and Sciences

This lesson concentrates on recognizing and correcting ambiguous pronoun references, usually by clarifying the pronoun's relationship to its antecedent. Main areas of discussion are: ambiguous pronouns, remote reference, and broad reference.

none;approximately 30 minutes;high school and college level

RECOGNIZING SENTENCES PART II (eng3;1977,1980;unpublished)
Barbara Geaither, Joan Sweany
City Colleges of Chicago
This lesson teaches recognition of fragment and run-on sentences and shows punctuation used with connecting words. There is a pretest.
none;50 minutes;Basic English students

REPAIRING SENTENCE FRAGMENTS (iusent;1979,80;unpublished)
Brent R Sweeny, Karl E Lehenbauer
Indiana University, College of Arts and Sciences
This lesson begins with a short review of the "basic needs" of a sentence: subject, verb, and completeness of idea, represented by a dependent clause standing alone. The role of the period is also emphasized. There are short drills illustrating the different problems and their "repairs".
none;30 minutes;high school/university writing students

SENTENCE LOGIC (iulogic;1979;unpublished)
Kenneth M Koester, Anthony Tomasic
Indiana University, College of Arts and Sciences
This lesson teaches fundamental concepts in sentence logic. Sound logic, metaphors, and relationships are studied with a paragraph exercise at the end to ingrain ideas covered.
none;45 minutes;college freshman

SUBJECT-VERB AGREEMENT I AND II (ADVANCED)
(iusva;1979;unpublished)
Kenneth M Koester, Anthony Tomasic
Indiana University, College of Arts and Sciences
This lesson provides a question and answer discussion of English grammar with subject-verb agreement. Topics included are: indefinite pronouns, relative pronouns, collective nouns, and plural nouns with singular meaning. Exercises conclude each section to reinforce discussed points.
none;one hour;high school and college level

TRANSITIONS (iutrans;1979,80;unpublished)
Brent R Sweeny, Kurt A Kahlo
Indiana University, College of Arts and Sciences
This lesson provides discussion of the uses and importance of transitions, with examples indicating how different transitions change the meanings of sentences. Various transitional devices and stategies are also mentioned, in addition to providing lists of words and phrases and practice using them.
none;30 minutes;advanced high school/university writing students

Orthography and spelling

SPELLING TEST (iuspel;1979;unpublished)
Tim Stehle, William Oates, Eric Hagstrom
School of Journalism, Indiana University, Bloomington

This lesson tests the spelling of words commonly misspelled by journalists. Scoring is kept for both accuracy and speed for random subsets of the entire vocabulary. There is a records section for those who wish to compete.

none;open-ended;high school and college level students

English language--Usage

WORDS COMMONLY CONFUSED (confuse;1980;unpublished)
Mariellen O Gilpin, Martin A Siegel, Dorothy Silver, Jim Mayeda
PLATO Education Group, Comp.-based Educ. Res. Lab

This lesson is designed to give students practice in using commonly confused words correctly. There are 37 pairs of words such as two/to/too, accept/except, aide/aid, import/export, etc. The 37 pairs are divided into seven sessions. A form of "corrective feedback paradigm" is used.

none;4-6 hours;high school level English students

Enzymatic analysis

ENZYME KINETICS (uiccbio4;1975;unpublished)
Stephen E Gruninger
Department of Biological Sciences, U of I, Chicago

This lesson discusses biological enzyme-catalyzed reactions with inhibition and Lineweaver-Burk analyses.

none;none;undergraduate and graduate students of biochemistry

Enzyme inhibitors

ENZYME KINETICS (uiccbio4;1975;unpublished)
Stephen E Gruninger
Department of Biological Sciences, U of I, Chicago

This lesson discusses biological enzyme-catalyzed reactions with inhibition and Lineweaver-Burk analyses.

none;none;undergraduate and graduate students of biochemistry

Epidemiology

THE CASE OF THE CONTAMINATED CULTURES (iodine;1980;1981)
Allan H Levy
School of Basic Medical Sciences, Univ. of Illinois

This lesson presents a very brief discussion of contaminated blood cultures in hospital situations.

none;5-10 minutes;medical students

Eye burns

EMERGENCY TREATMENT OF OCULAR TRAUMA (shp167;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson teaches the emergency techniques used in the treatment of chemical, radiation and mechanical trauma and describes the use and proper documentation of the patients' medical records as they relate to the eye.
none;none;students of optometry

Eye--Accommodation and refraction

AMETROPIA (shp62;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson will provide information enabling the user to recognize a refractive error from its description, draw a diagram representing an eye with and without a refractive error, describe the probable visual effects of various refractive errors, and explain to a patient what is optically wrong with his or her eyes.
none;none;students of optometry

Eye--Anatomy

A & P OF THE EYE (shp59;1979;unpublished)
Hugh B Encinias, Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson offers a review of the anatomy and physiology of the eye. Upon completion of the lesson the student should understand basic facts and terms related to the eye. At the end of the lesson are two quizzes - one on eye anatomy and one on the physiology of the eye.
none;none;students of optometry

THE OCULAR ADNEXA (shp311;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson presents the function and location of each of the major structures of the ocular adnexa, lists the nerves which supply the eye and its adnexa, and gives the location of each of the bones of the orbit.
none;none;students of optometry

Eye--Diseases and disorders

HORIZONTAL EYE MOVEMENT (eyemove;1980;unpublished)
Brian A Curtis, Peggy E Dengler, Michael R Hughes
School of Basic Medical Sciences, Univ. of Illinois
This review and drill on horizontal eye movement discusses deficits in the nervous control system to those muscles which lead to doubles in vision.
none;none;medical students and students of the health sciences

Eye--Examination

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.

none;none;students of optometry

THE VISUAL FIELD (shp23;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.

none;none;students of optometry

VISUAL ACUITY TESTING THEORY (shp290;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson discusses types of visual acuity and some of the ways in which vision is measured.

none;none;students of optometry

Eye--Muscles

A & P OF THE EYE (shp59;1979;unpublished)
Hugh B Encinias, Richard M Stawicki
Sheppard Air Force Base, Texas

This lesson offers a review of the anatomy and physiology of the eye. Upon completion of the lesson the student should understand basic facts and terms related to the eye. At the end of the lesson are two quizzes - one on eye anatomy and one on the physiology of the eye.

none;none;students of optometry

HORIZONTAL EYE MOVEMENT (eyemove;1980;unpublished)
Brian A Curtis, Peggy E Dengler, Michael R Hughes
School of Basic Medical Sciences, Univ. of Illinois

This review and drill on horizontal eye movement discusses deficits in the nervous control system to those muscles which lead to doubles in vision.

none;none;medical students and students of the health sciences

THE EXTRAOCULAR MUSCLES (shp260;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the six extraocular muscles and the origin, insertion and action of each muscle. The student will learn to perform the Cover Test, Diagnostic H Test and Worth 4-Dot Test and to properly record the results of these tests.
none;none;students of optometry

Eye--Wounds and injuries

EMERGENCY TREATMENT OF OCULAR TRAUMA (shp167;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson teaches the emergency techniques used in the treatment of chemical, radiation and mechanical trauma and describes the use and proper documentation of the patients' medical records as they relate to the eye.
none;none;students of optometry

Eyeglasses

OPHTHALMIC OPTICS (shp17;1974;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and offers practice with terminology, ophthalmic lens forms, aberrations in lenses and transposition of eyewear prescriptions.
none;none;students of optometry

Face--Innervation

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

Facial nerve

CIRCULATION, NERVES, SALIVARY GLANDS (shp18;1974;unpublished)
David R Stutz, Brian Hasse
Sheppard Air Force Base, Texas
This lesson teaches the student to name and state the basic functions of salivary glands and associated arteries, veins, lymphatics and nerves. There is a quiz at the end.
none;none;dental assistants

Flight control

727 FD108 FLIGHT DIRECTOR (fd108a;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to identify and locate the components associated with the 727 Flight Director.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - NORMAL PROCEDURES (fd108b;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user will be able to perform normal procedures in all modes of operation during exercises simulating operation of the Collins FD108.
none;none;student pilots

727 FD108 FLIGHT DIRECTOR - ABNORMAL OPERATIONS (fd108c;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to recognize failure flags, identify the problem, and select the appropriate corrective action(s) required to reinstate the failed flight director system, where possible, in flight.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - PROFICIENCY CHECK (fd108d;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
This lesson provides a sequence of simulation exercises that provides the user with an opportunity to demonstrate skill in operating the FD108 flight director system, based on the "727 FD108 Flight Director" lessons.
none;none;student pilots

Flight training

A AND P MECHANICS, POWERPLANT - WRITTEN EXAMINATION STUDY GUIDE (ppflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for powerplant A and P flight mechanics. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student flight instructors

FLIGHT INSTRUCTOR, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (fflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for airplane flight instructor. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
supplemental handout;open-ended;student flight instructors

FUNDAMENTALS OF INSTRUCTING - WRITTEN EXAMINATION STUDY GUIDE (foflight;1978;unpublished)
Stanley R Trollip, William C Entwistle
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student to practice taking the written examination for fundamentals of flight instruction. The user may choose to take a quiz over one major category, a quiz over one or more subcatagories, or a general quiz over all categories.
none;open-ended;student flight instructors

Food--Analysis

DIETARY ANALYSIS (dianal;1976;unpublished)
Frances M LaFont
School of Human Resources and Family Studies, U of I
This lesson provides experience in analyzing diets for nutrient content.
none;open-ended;nutrition students

FORTRAN (Computer program language)

FORTRAN ADVANCED FORMATTING (fortfmt2;1975;unpublished)
Andy Papamarcos, Nick Klein, David Dodgson,
Lawrence T Levy, Richard Montanelli
Computer Science Dept., University of Illinois
This advanced lesson in FORTRAN formatting covers general format code, repeating codes, multiple record input/output, column generating code, code for hexadecimal input/output, position of decimal point and execution-time format. There are exercises for student practice.
none;none;computer programming students

FORTRAN NESTED DO-LOOPS (fortnest;1979;1981)
Lawrence T Levy
Computer Science Department, University of Illinois
This lesson presents a discussion of the FORTRAN nested DO-loop. Familiarity with the FORTRAN If statement and basic knowledge of the DO statement is assumed.
none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT (fortread2;1980;unpublished)
Lawrence T Levy
Computer Science Department, University of Illinois
This lesson treats the standard FORTRAN READ statement.
none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT, PART II
(fortread1;1979;unpublished)
Lawrence T Levy
Computer Science Department, University of Illinois
This lesson continues the treatment of the FORTRAN READ statement with formats.
none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT (fortread;1979;1981)
Lawrence T Levy
Computer Science Department, University of Illinois
This lesson provides an introduction to the format-free READ statement.
none;none;high school and college computer programming students

French language

PRACTICE EXERCISE WITH FRENCH NUMBERS (frnumb;1980;1980)
Fernand Marty, Robert Hart
French Department, University of Illinois
This lesson provides practice with French numbers. The user can type in the figure with the computer providing the number in French, or the computer can write the number in French with the user providing the figure, or the computer can provide the figure with the user typing in the number in French.
none;open-ended;college/university students

Fuel pumps

FUEL PUMP TEST (PRESSURE) (cha64;1974;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson instructs the student in how to perform pressure tests on automotive fuel pumps. There is a quiz at the end of the lesson to assess the student's understanding of the material.
none;none;persons interested in automobile mechanics

FUEL PUMP TEST (VOLUME) (cha16;1972;unpublished)
Bruce Iehl
Chanute Air Force Base, Illinois
This lesson instructs the student in how to perform fuel pump tests for volume. There is a quiz at the end of the lesson to assess the student's understanding of the material.
none;none;persons interested in automobile mechanics

WELCOME TO THE FUEL TANK (cha7;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents the automotive fuel tank and its components, their location, purpose and construction. A test follows the instruction.
none;none;persons interested in automobile mechanics

Gas and oil engines

CRANKING MOTORS (cha41;1980;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson discusses the purposes, the components, and the principles of operation of an automotive starting system. There is a test at the end of the lesson.
none;none;persons interested in automobile mechanics

ENGINE CLASSIFICATION (cha1;1972;unpublished)
Jan Dallman
Chanute Air Force Base, Illinois
This lesson teaches the student to identify automotive engines according to the type of fuel used, number of strokes per cycle, method of cooling, block design, and valve arrangement.
microfiche;none;persons interested in automobile mechanics

GASOLINE ENGINE PRINCIPLES (cha91;1974;unpublished)
K J Wigton
Chanute Air Force Base, Illinois
This lesson defines and illustrates the basic operating principles of gasoline engines.
none;none;persons interested in automobile mechanics

IDENTIFICATION OF THE PARTS OF A GAS ENGINE (cha12;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois
In the first part of the lesson the student is presented with cutaway views of a gasoline engine and is asked to identify the basic components. Then the student is asked to match the components with a description of their purpose.
none;none;persons interested in automobile mechanics

INTRODUCTION TO ENGINE PARTS (cha2;1972;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson teaches the student to understand and recognize the most visible automobile engine parts. The instruction is followed by a test.
none;none;persons interested in automobile mechanics

STARTER MOTOR DIAGNOSIS GAME (cha34;1973;unpublished)
Jan Dallman, K J Wigton
Chanute Air Force Base, Illinois
In this simulation the student asks questions which aid in the diagnosis of an automotive malfunction.
none;none;persons interested in automobile mechanics

Gas and oil engines--Mufflers

AIR AND EXHAUST SYSTEMS (cha50;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson provides a discussion of the basic facts and principles relating to the operation of air and exhaust systems. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

Gas and oil engines--Valves

VALVE TRAIN MECHANISMS (cha18;1973;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson treats the mechanical and hydraulic valve operating system and discusses timing chains, camshafts, lifters, push rods, and valves.
none;none;persons interested in automobile mechanics

Gases
--in chemistry

PRESSURE-VOLUME RELATIONSHIP BOYLE'S LAW (shp70;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson discusses one of the fundamental laws of the behavior of gases - Boyle's Law.
none;none;physicians' assistants

Gasoline--Rationing, Consumer

A GASOLINE RATIONING SIMULATION (tshort;1979;unpublished)
Tim Strawhacker, Jim Battin, Kathleen M Waggoner,
Hossein Ali Vaezi, Kenneth A Brewer, William Woodman
Sociology Department, Iowa State University, Ames
This lesson is a presentation of possible situations that could arise if a serious gasoline shortage were to occur. It also projects the consequences of the decisions of the user/student in meeting the crisis.
none;40 minutes;sociology students

Gear-cutting machines

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abe17;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Gearing

TRANSFER CASES/POWER TAKE-OFF (cha86;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson treats the basic facts and principles of transfer cases and power take-off units.
none;none;persons interested in automobile mechanics

Gearing--Manufacture

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abe17;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Gearing, Planetary

DIFFERENTIALS (cha66;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson discusses automotive and truck differentials, front and rear driving axles and planetary gear reduction. There is a test at the end.
none;none;persons interested in automobile mechanics

Gearing, Spur

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abe17;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Gel permeation chromatography

GEL FILTRATION (gelfil;1976;unpublished)
Bob Belas
University of Connecticut Health Center
This lesson provides an introduction to the theory and practical aspects of protein separation.
none;none;medical and laboratory technologists and persons

Genetic transcription

TRANSCRIPTIONAL CONTROL: THE LACTOSE OPERON (geepsie;1978;unpublished)
Laurie E Shapiro
University of Connecticut School of Medicine
This is an interactive biochemical lesson that teaches basic concepts of transcriptional control, using the lactose operon as the model.
none;15-20 minutes;medical students and biochemistry students

Gram's stain

SPUTUM (shp110;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
none;none;physicians' assistants

Gynecology

GYNECOLOGIC ENDOCRINOLOGY (gynendo;1979,80;unpublished)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to acquaint the student with the clinical presentations of gynecologic endocrine-type abnormalities as well as to delineate the etiology of the abnormalities and to outline the various management possibilities. A glossary is available.
none;none;medical students and students of the health sciences

Heart

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
Hugh B Encinias
Sheppard Air Force Base, Texas
This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
none;none;persons interested in health science information

Heart conduction system

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS
(shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

Heart failure

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS
(shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

Hebrew language

FIRST SEMESTER MODERN HEBREW (hebl;1976;unpublished)
Peter Cole, John D Eisenberg, Robert J Lebowitz,
Vered Nachshon, Merrick Simkin, Roberta Stock,
Avram Ziv
Modern Hebrew Project, University of Illinois, Urbana
This package of thirty lessons offers a first semester of Hebrew.
none;none;students of Hebrew

SECOND SEMESTER MODERN HEBREW (heb37;1976;unpublished)
Peter Cole, John D Eisenberg, Robert J Lebowitz,
Vered Nachshon, Merrick Simkin, Roberta Stock,
Avram Ziv
Modern Hebrew Project, University of Illinois, Urbana
This package of thirty-two lessons offers a second semester of Hebrew.
none;none;students of Hebrew

Helicopters--Piloting

INSTRUMENT PILOT, HELICOPTER - WRITTEN EXAMINATION STUDY GUIDE (hflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for instrument pilot-helicopter. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

Hemoglobin

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.
none;none;physicians' assistants

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.
none;none;physicians' assistants

OXYGEN TRANSPORT (shp119;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.
none;none;physicians' assistants

THE NATURE OF HEMOGLOBIN (shp117;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson defines the terms used to describe the hemoglobin form and function and identifies the physical and chemical characteristics of the molecule. The details of hemoglobin interaction with oxygen and carbon dioxide in the blood are also presented.
none;none;physicians' assistants

Hexadecimal system

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.
none;60 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.
none;30 minutes;students of electronics

NUMBER SYSTEMS (afs1;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.
none;30 minutes;students of electronics

Human skeleton

STRUCTURES AND FUNCTIONS OF THE SKELETAL SYSTEM (shp289;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson describes the function of bones, and diagrams and labels the skeletal system. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

Hydraulic torque converters

PRINCIPLES OF OPERATION OF THE AUTOMATIC TRANSMISSION (cha73;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and operating principles of fluid couplings, torque converters and automatic transmissions.
none;none;persons interested in automobile mechanics

Immunization

IMMUNIZATIONS (shp302;1979;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson teaches basic facts and principles related to immunization. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

MEDICAL CENTER (medcentr;1979;1981)
David E Trachtenbarg, Stephen C Doughty
School of Basic Medical Sciences, Univ. of Illinois
This lesson simulates the effects of diseases on different organ systems in the human body, the use of immunizations, and drug costs. Extensive help is available.
none;open-ended;first year medical students

Indexes

ACCOUNTANCY INDEX (comr;1978;unpublished)
James C McKeown
Department of Accountancy, U of I, Urbana, Illinois
This lesson provides an index to basic financial accounting and basic managerial accounting lessons. They can also be found catalogued individually via the title and subject indexes.
none;open-ended;persons interested in accounting

AN INDEX OF BASIC MATHEMATICS LESSONS (mathindex;1980;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
The lessons in this index were designed as part of the PLATO Mathematics Project at the University of Illinois' Computer-based Education Research Laboratory.
none;variable;elementary level students

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

CATALOG OF ALLIED HEALTH SCIENCE LESSONS (alliedcat;1977;unpublished)
Lisa Brenner
School of Basic Medical Sciences, Univ. of Illinois
This lesson provides an index to allied health science lessons.
optional touch panel;open-ended;persons interested in the health sciences

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CHANUTE AFB PLATO CATALOGUE, 3330 TECHNICAL TRAINING WING (chacat;1980;unpublished)
Dennis Cadwell, Paul C Aschenbrenner
Chanute Air Force Base, Illinois

This catalogue itemizes the lessons currently being utilized by Chanute Air Force Base personnel to conduct both mainline and peripheral training. Lesson titles and lesson names are listed under each category of use.

none;open-ended;persons interested in technical training

DIAGNOSTIC PRETEST FOR USE WITH MATHEMATICAL MATERIALS ... TO BUILD READINESS FOR HIGH SCHOOL SCIENCE (smpre;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.

This diagnostic test covers the following skills: plotting points with rectangular coordinates, operations with decimal numbers, conversions between percents and decimals, solving simple equations, reducing fractions, simplifying expressions and the use of exponents.

none;variable;high school science students

INDEX OF BILINGUAL LESSONS (dvlindex;1981;unpublished)
Don Gillies
Danville C. C. School District, Danville, Illinois

This lesson offers an index to lessons developed by the Danville School District. Not all of the lessons are actually available in Spanish and English.

none;open-ended;elementary students

LABORATORY TESTS (shp29;1974;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas

This lesson provides an index to laboratory procedures for physician's assistants.

none;open-ended;physicians' assistants

SHEPPARD AIR FORCE BASE LESSON CATALOG (;1979;unpublished)
Timothy R McKee
Sheppard Air Force Base, Texas

This index lists the lessons developed at the School of Health Care Sciences, Sheppard Air Force Base, Texas. The lessons are indexed functionally and alphabetically. Users can access the lessons from the index for the purpose of examination. This catalog is found in the processor lesson "shpcat".

none;open-ended;health care science students

SPORTS LESSONS (sports;1981;unpublished)
Brendan McGinty, Jim Mayeda
University of Illinois

This lesson serves as an index to all of the sports related lessons on PLATO. There is also a signup list for people wanting to play interterminal sports simulations. The index was initially begun by Mark Nakada.

none;open-ended;general

Indexing (Machine-shop practice)

INDEXING (abe23;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.

This lesson teaches the student the correct formulas and accurate calculations for the direct, plain and degree indexing patterns. The student may choose to take a pretest or a test at the end of the lesson.

none;60 minutes;vocational students

Inheritance and succession

SURROGATE'S COURT (surrogate;1976;unpublished)
Robert C Platt, Judith E Grimes
Antioch Law School, Washington, D. C.

This lesson is designed with the student preparing to take the bar examination in mind. It deals with trusts and estate laws and provides drill on intestate distribution, elective shares and perpetuities.

none;none;second year law student

Injections, Intravenous

INTRAVENOUS THERAPY (shp305;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas

This lesson teaches the student to select procedures and reportable observations related to intravenous injections, intravenous infusions and intravenous transfusions.

none;none;physicians' assistants

Instrument flying--Examinations, questions, etc.

INSTRUMENT PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (iflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois

This lesson allows the student pilot to practice taking the written examination for instrument pilot-airplane. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.

supplemental handout;open-ended;student pilots

Intrauterine contraceptives

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson highlights select features pertinent to the use of some of the available contraceptive methods.
none;none;medical students and students of the health sciences

Intravenous therapy

INTRAVENOUS THERAPY (shp305;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the student to select procedures and reportable observations related to intravenous injections, intravenous infusions and intravenous transfusions.
none;none;physicians' assistants

Japanese language--Study and teaching

COMPARATIVELY SPEAKING (dore;1981;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
Three different types of quizzes allow the student to review Japanese comparative adjectival constructions. All the quizzes refer to a menu of Japanese food.
none;none;first year students of Japanese

EAST ASIAN POCKET CALCULATOR (kazoeru;1979;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
With this lesson the student can practice Japanese number expressions with a simulated pocket calculator. The register shown on the screen displays Chinese characters. The student selects the level of difficulty of the problems. Specific corrective feedback is given for all possible errors. The lesson also works in Mandarin Chinese.
touch panel;open-ended;general

GIVING DIRECTIONS: TAXICAB SIMULATION (takusii;1981;unpublished)
Chuck Roberts
E. Asian Languages, University of Hawaii, Manoa
By giving commands in romanized Japanese, the student maneuvers an animated taxicab around a city of nine blocks. Extensive help is provided.
none;open-ended;first year students of Japanese

HAWAI NO NIHONGO: JAPANESE SPOKEN IN HAWAII BY KAMA'AINA
(pidgin;1981;unpublished)
Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson compares Hawaiian "local" Japanese with standard Japanese and is designed to help the student understand the Hawaiian dialect. Hawaiian and English loanwords and expressions are only mentioned if they are very frequently used words. The student is expected to have already mastered the basic grammar of the modern Tokyo dialect.
none;open-ended;first year students of Japanese

HIRAGANA REVIEW (hiragana;1978;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson offers activities for review of hiragana which beginning students can use regardless of the textbook they may be using. It includes a presentation on Iroha Uta, Roman-to-hiragana conversion, an hiragana review game, and practice with modified Japan Industrial Standard keyset input.
none;open-ended;first year students of Japanese

INTRODUCTION TO JAPANESE PHONOLOGY AND THE TABLE OF HIRAGANA
(phonemes;1981;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson teaches the hiragana tableau with or without corrective feedback (student's choice), and provides an extensive discussion of the phonological structure of modern Japanese.
none;none;first year students of Japanese

INTRODUCTION TO PLATO IN ROMANIZED JAPANESE
(nyuumon;1979;unpublished)
J Marshall Unger, Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson provides an introduction to PLATO in Romanized Japanese. It is a translation of the lesson "udhlp", originally developed at the University of Delaware.
none;10-15 minutes;first year students of Japanese

JAPANESE BINGO (jbingo;1978;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
Originally created by Marshall Midden and Kevin Nortrup, this bingo game has been adapted to Japanese. Any number of students can play this inter-terminal game simultaneously. Each user can choose to use hiragana, katakana, or an assortment of Chinese characters (kanji), depending on what aspect of Japanese orthography he or she wishes to review.
touch panel;open-ended;first year students of Japanese

JAPANESE POSTPOSITIONS (zyosi;1978;unpublished)
J Marshall Unger, David Ashworth, Joseph Hebert
E. Asian Languages, University of Hawaii, Manoa
This lesson provides the student with practice using particles. A grid with three columns appears on the screen listing nouns, particles and verbs. The student touches the words to form a sentence and PLATO translates the sentence, marking it "good" or "no good", depending on the student's use of the particle.
touch panel;open-ended;first year students of Japanese

JAPANESE TELEPHONE QUIZ (denwa;1978;unpublished)
J Marshall Unger, David Ashworth
E. Asian Languages, University of Hawaii, Manoa
This lesson provides a multiple choice review of Japanese idioms used in telephone conversations. The student must choose the correct alternative at various places within the sentences.
none;15-30 minutes;first year students of Japanese

JAPANESE VERB FORMS (doosi;1978;unpublished)
J Marshall Unger, David Ashworth
E. Asian Languages, University of Hawaii, Manoa
This lesson teaches the basic allomorphs of Japanese verbs via two kinds of activities. Half of the student's options lead to drills with corrective feedback and the other options lead to step-by-step animated displays which graphically demonstrate how complex inflectional forms are derived from simpler forms.
none;none;first year students of Japanese

KATAKANA REVIEW (katakana;1978;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson offers activities for review of katakana which beginning students can use regardless of the textbook they are using. It includes Roman-to-katakana conversions, a katakana review game, and practice with the katakana keyset.
none;open-ended;first year students of Japanese

MIZIKAI HANASI: REVIEW OF CONFUSING EXPRESSIONS
(hanasi1;1981;unpublished)
Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa
The purpose of this lesson is to help the student understand Japanese expressions which are similar in form but different in meaning or vice versa. The lesson will not teach these expressions as it is expected that they have already been encountered.
touch panel;none;first year students of Japanese

ON LOCATION (doko;1981;unpublished)

Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa

Three different types of quizzes allow the student to review Japanese constructions which describe locations. All quizzes refer to a map of buildings whose identities change from game to game.

none;none;first year students of Japanese

ORDER AND DIRECTION OF STROKES IN WRITING KANJI (kaku;1981;unpublished)

J Marshall Unger, Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa

This lesson allows the student to examine the order and direction of pen strokes in the writing of all 1,946 "joyo kanji". Kanji are indentified by giving a binomial compound in which they occur; e.g., "tyuugoku no goka" identifies the second kanji in the written form of the noun meaning "China".

none;open-ended;first year students of Japanese

READING KATAKANA (kk1;1980;unpublished)

J Marshall Unger, Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa

This is the first in a series of lessons based on Jorden's "Reading Japanese" designed to offer students practice in reading katakana. The student may review a section after it is completed. "kk2-kk6" contain the rest of the reading lessons.

none;none;first year students of Japanese

REVIEW OF INFLECTED FORMS (rif1;1980;unpublished)

Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa

These lessons offer practice in using verb, adjective, and copula constructions presented in Jorden's "Beginning Japanese". The student is given sentences in English, and and the Japanese equivalents of these sentences include one of the inflected forms. The student must type in the proper form. Other lessons are in "rif2-rif21" and "rif23-rif25".

none;none;first year students of Japanese

SEKIGAHARA: A JAPANESE LANGUAGE REVIEW GAME (jgame;1978;unpublished)

J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa

In this lesson students compete in an interterminal game of strategy. Each move requires the input of two Japanese words from a set of 121 possibilities. Two different games can be played: numbers-and-counters and verb forms. The competing students do not have to play the same game.

none;open-ended;first year student

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SENTENCE-MODIFIERS IN JAPANESE (kuraberu;1979;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson provides practice in using sentence-modifier patterns in Japanese. Sentence-modifiers are to Japanese what relative clauses are to English. Pictures and sentences using relative clauses are shown to the student and questions are asked concerning the pictures. The student, in answering, must use a relative clause construction in Japanese.
none;none;first year students of Japanese

SYOOGUN (syoogun;1980;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
This is a Monopoly-like game which one to four students can play simultaneously. In order to win yen, the students must answer simple questions in Japanese. Students can also play against Syoogun (Shogun), who never makes mistakes.
none;open-ended;first year students of Japanese

TELLING TIME IN JAPANESE (tokei;1979;unpublished)
J Marshall Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson offers instruction and practice with time expressions in Japanese.
none;open-ended;first year students of Japanese

TOUCH PANEL KANJI QUIZ (hureru;1979;unpublished)
J Marshall Unger
E. Asian Langages, University of Hawaii, Manoa
This is a demo lesson that shows how mixed kana/kanji script can be used in a Japanese lesson together with such PLATO features as touch input. It is not recommended for serious use by students.
touch panel;open-ended;first year students of Japanese

VERBS OF BEING: PART I, MIKADO (keigo1;1978;unpublished)
Ray Kaneyama, David Ashworth
E. Asian Languages, University of Hawaii, Manoa
This is part one of a two-part lesson designed to introduce the student to the proper use of Japanese verbs of being, the mastery of which will lead to an understanding of the basic concepts underlying Japanese speech levels and honorifics.
none;none;first year students of Japanese

VERBS OF BEING: PART II, BUTYOO (keigo2;1978;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
This lesson simulates the student's "life" as a freshman worker in a Japanese advertising agency and provides the opportunity to practice the concepts mastered in "Verbs of Being: Part I".
none;none;first year students of Japanese

VERBS OF GIVING AND RECEIVING (keigo3;1978;unpublished)
Ray Kaneyama
E. Asian Languages, University of Hawaii, Manoa
This lesson goes beyond Japanese verbs of existence with a presentation of verbs of giving and receiving, which play an important role in the keigo distinctions of Japanese grammar. The student is also offered practice problems.
none;none;first year students of Japanese

Job vacancies--Information services

HOW TO READ WANT ADS (wantads;1980;unpublished)
Joni Parman, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson discusses the abbreviations commonly found in want ads and helps the user to become familiar with reading want ads.
none;none;general

WHERE TO LOOK FOR JOBS (jlook;1980;unpublished)
Joni Parman, Jim Mayeda, Lisa Patchner
School of Social Work, University of Illinois, Urbana
This lesson discusses the various and common places to search when looking for a job.
none;none;general

Juvenile delinquency

THE YOUTH PROBLEM (cdcons2;1979;unpublished)
Terry Alliband, Dane Winberg
Southern Illinois University, Carbondale, Illinois
This lesson provides the first of three community development problems and offers the student the opportunity to do something about the wave of vandalism and delinquency in the town of Communitopia.
none;none;persons interested in community development

Keys and keyways (Machinery)

KEYS AND KEYWAYS (abe12;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the commonly used keys and keyways and calculate the dimensions for machining the keyways to the correct dimensions. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

Kidneys

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

Labor and laboring classes

ASSEMBLY LINE SIMULATION (worker;1977;unpublished)
William Woodman, Tim Strawhacker, Jim Battin
Sociology Department, Iowa State University, Ames
This lesson simulates possible situations that might arise in the life of an assembly line blue-collar worker and illustrates some methods a worker might use to meet each case described.
none;50 minutes;sociology students

Lathes

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.
none;60 minutes;vocational students

Law reports, digests, etc.

LEGAL RESEARCH SKILLS (lbcases;1980;unpublished)
Robert C Platt, Thomas Coogan
Antioch Law School, Washington, D. C.
This is part one in a series of four lessons. The lessons provide a comprehensive survey of all major law finding tools and published references. There are both text and review questions. Parts one through four cover case materials, case digests, statutory materials, and administrative materials respectively.
none;none;first year law students

Law--Interpretation and construction

FORESEEABILITY IN NEGLIGENCE (palsgraf;1979;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson discusses and illustrates with an actual case the concept of foreseeability in negligence. The student is then presented with a hypothetical fact pattern and asked to analyze every possible combination of plaintiffs and defendants.
none;none;law students

INTRODUCTION TO TORTS (torts;1978,80;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
Based on the report of the Competency Based Task Force, this lesson presents materials pertaining to torts and tort law. Drills are offered to help the student apply the concepts.
none;none;first year law students

INTRODUCTION TO TORTS DEFENSES (tortdef;1978;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson reviews tort elements and defenses. Summaries of defenses are presented and practice problems are offered for the student's review.
none;none;students of law

LEGAL RESEARCH SKILLS (lbcases;1980;unpublished)
Robert C Platt, Thomas Coogan
Antioch Law School, Washington, D. C.
This is part one in a series of four lessons. The lessons provide a comprehensive survey of all major law finding tools and published references. There are both text and review questions. Parts one through four cover case materials, case digests, statutory materials, and administrative materials respectively.
none;none;first year law students

PRIORITY OF INVENTION (templatt;1977;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson discusses how a "first inventor" is chosen to receive a patent from among competing groups that independently invented the same concept.
none;none;law students

SURROGATE'S COURT (surrogate;1976;unpublished)
Robert C Platt, Judith E Grimes
Antioch Law School, Washington, D. C.

This lesson is designed with the student preparing to take the bar examination in mind. It deals with trusts and estate laws and provides drill on intestate distribution, elective shares and perpetuities.

none;none;second year law student

Law--Study and teaching

LEGAL RESEARCH SKILLS (lbcases;1980;unpublished)
Robert C Platt, Thomas Coogan
Antioch Law School, Washington, D. C.

This is part one in a series of four lessons. The lessons provide a comprehensive survey of all major law finding tools and published references. There are both text and review questions. Parts one through four cover case materials, case digests, statutory materials, and administrative materials respectively.

none;none;first year law students

Lawyers--Handbooks, manuals, etc.

LEGAL RESEARCH SKILLS (lbcases;1980;unpublished)
Robert C Platt, Thomas Coogan
Antioch Law School, Washington, D. C.

This is part one in a series of four lessons. The lessons provide a comprehensive survey of all major law finding tools and published references. There are both text and review questions. Parts one through four cover case materials, case digests, statutory materials, and administrative materials respectively.

none;none;first year law students

Lenses

GEOMETRICAL OPTICS (shp203;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.

none;none;students of optometry

OPHTHALMIC OPTICS (shp17;1974;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson discusses and offers practice with terminology, ophthalmic lens forms, aberrations in lenses and transposition of eyewear prescriptions.

none;none;students of optometry

Light

GEOMETRICAL OPTICS (shp203;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.
none;none;students of optometry

INTRODUCTORY BASIC OPTICS (shp142;1976;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This study of vision discusses several theories of light propagation, describes important characteristics of light, and defines laws and characteristics of reflection and refraction. There is a quiz at the end.
none;none;students of optometry

Logic diagrams

LOGIC - USING VENN DIAGRAMS TO TEST THE VALIDITY OF CATEGORICAL SYLLOGISMS (vennc;1978;unpublished)
Doug Wills, Nik Hughes, Don Nolen, Bruce Suttle, John Hertig
Parkland College, Champaign, Illinois
This lesson discusses the use of Venn diagrams to check logical arguments for validity. After each section there are exercises to check the user's understanding of the material.
none;none;persons interested logic diagrams

Lubrication and lubricants

AUTOMOTIVE ENGINE LUBRICATION SYSTEM (cha8;1972;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and principles relating to the operation of engine lubricating systems.
none;none;persons interested in automobile mechanics

Lubrication systems

AUTOMOTIVE ENGINE LUBRICATION SYSTEM (cha8;1972;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson presents basic facts and principles relating to the operation of engine lubricating systems.
none;none;persons interested in automobile mechanics

Lungs

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION (shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.
none;none;physicians' assistants

INTRODUCTION TO RESPIRATION AND VENTILATION, PART II (shp109;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the air conduction passageways that are involved in the process of pulmonary ventilation.
touch panel;none;physician's assistants

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

PULMONARY VOLUMES AND CAPACITIES (shp58;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the four lung volumes and match each to its respective volume, and name the four lung capacities and identify the lung volumes that are included in each capacity.
none;none;physicians' assistants

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.
none;none;physicians' assistants

VENTILATION OF THE ALVEOLI (shp74;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses minute respiratory volume, alveolar ventilation, air conduction passageways, and methods of taking rate and volume measurements.
none;none;physicians' assistants

Lungs--Diseases

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART II (shp116;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the laboratory studies, data analysis, and treatment associated with infectious infiltrative lung disease.
slides;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART III (shp128;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson summarizes the various types of pneumonia, classifying them according to the micro-organism that causes the infection. Specifically covered are: epidemiology, subjective and objective data, pathology, diagnosis and treatment.
none;none;physicians' assistants

Machine-shop practice--Examinations, questions, etc.

MACHINIST PROFICIENCY TEST (abe46;1974;1981)
Frank C Dare
Aberdeen Proving Grounds, Maryland
This lesson provides a test on topics pertinent to machinery. Ten minutes are allowed for completion and the test may be repeated.
paper and pencil;10 minutes per testing;vocational students

Machinists' tools

INDEXING (abe23;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student the correct formulas and accurate calculations for the direct, plain and degree indexing patterns. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

KEYS AND KEYWAYS (abe12;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the commonly used keys and keyways and calculate the dimensions for machining the keyways to the correct dimensions. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.
none;60 minutes;vocational students

READING THE MICROMETER CALIPER (abe4;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the parts of a micrometer and to interpret the readings of a micrometer. The student may choose to take a pretest or to take a test at the end of the lesson.
none;60 minutes;vocational students

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abe17;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Magnetism

APPLICATIONS OF MAGNETISM (elecfund5;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson discusses some of the different mechanical and electrical ways in which magnetism is used.
none;none;persons interested in automobile mechanics

INTRODUCTION TO MAGNETISM (elecfund4;1976;unpublished)
Kenneth E Burkhardt
Chanute Air Force Base, Illinois
This lesson teaches the basic principles of magnetism, treats its importance, and explains how magnets work. There is a quiz at the end.
none;none;persons interested in automobile mechanics

Mastication

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

Mathematical notation

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

Mathematics

Dimensional analysis

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

Graphic methods

GRAPHING EXPERIMENTAL DATA PART I: WEIGHTS ON A SPRING (wtgraph;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Stephen Peltz
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson provides an experiment in which the student measures and compares the elasticity of three different springs.
none;none;high school students

GRAPHING EXPERIMENTAL DATA PART II: WEIGHTS ON A LEVER (wtlever;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Tom Layman
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
In this experiment the student will balance weights on a lever and analyze the relationship between the size of a weight and how far from the fulcrum of the lever it balances.
none;none;high school students

GRAPHING EXPERIMENTAL DATA PART III: AN INTRODUCTION TO DIRECT AND INVERSE VARIATION (wtvar;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson treats direct and inverse variation and furnishes the student with practice problems.
none;none;high school students

Mathematics--Ability testing

DIAGNOSTIC PRETEST FOR USE WITH MATHEMATICAL MATERIALS ... TO BUILD READINESS FOR HIGH SCHOOL SCIENCE (smpre;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This diagnostic test covers the following skills: plotting points with rectangular coordinates, operations with decimal numbers, conversions between percents and decimals, solving simple equations, reducing fractions, simplifying expressions and the use of exponents.
none;variable;high school science students

MATH PRETEST (shp303;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This is a pretest that determines whether or not the student needs to complete the mathematics lessons offered to users studying to be physician's assistants. Areas covered are: addition, subtraction and multiplication of signed and unsigned numbers, division of decimals, conversion of fractions to decimals and metric units of length.
none;120 minutes allowed;physicians' assistants

Matter--Properties

PROPERTIES OF MATTER: DENSITY (density;1977;unpublished)
Carolynn Moore
Chemistry Department, University of Illinois
This lesson treats the property of matter called density. The student learns what kinds of conclusions can be drawn about a material by knowing its density.
none;none;college/university students of beginning chemistry

Medical education

FEBRILE AGGLUTINATIONS (shp113;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson discusses the diseases for which febrile agglutinations are useful diagnostic aids, the significance of these tests, and the tests themselves. There is a quiz at the end.
none;none;physician's assistants

Medical ethics

ETHICAL RESPONSIBILITIES (shp300;1978;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson discusses the ethical responsibilities of a medical service specialist in professional and patient relationships.
none;none;students of the health sciences

MEDICAL ETHICS SIMULATION (ethics;1979;unpublished)
David E Trachtenbarg, Robert Whitehouse, Theodore Scharle
School of Basic Medical Sciences, Univ. of Illinois
In this simulation the student is presented with medical problems having no right solution. Based on ethical and medical judgement, the student must choose a solution.
none;open-ended;first year medical students

PROFESSIONAL AND PATIENT RELATIONS (shp244;1974;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson treats the subjects of professional standards of conduct, patient data confidentiality and conflict of interests.
none;none;physicians' assistants

Medical instruments and apparatus--Safety measures

ELECTRICAL HAZARDS AND PROTECTION (shp216;1977; 1981)
Neil D Horowitz
Sheppard Air Force Base, Texas
In this lesson the student learns to identify the sources of electrical hazards within the radiology department, describe the physical and physiological effects of electrical shock, state the precautions necessary to reduce electrical hazards and describe the importance of a common ground when using equipment during special procedures.
none;none;physicians' assistants

Medical laboratories--Technique

LABORATORY TESTS (shp29;1974;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides an index to laboratory procedures for physician's assistants.
none;open-ended;physicians' assistants

Medical statistics

ANALYSIS OF VARIANCE FOR REPEATED MEASURES (anovarep;1979,80;unpublished)
Jeffrey Shoup, Anal Purohit, Joseph Kaufman
College of Pharmacy, U of I Medical Center
This lesson for analysis of variance is applicable when repeated measures are taken on the same subject at different experimental levels.
none;open-ended;students of medicine and the health sciences

PHARMACOKINETICS CALCULATIONS (pkinmod;1980;unpublished)
Tobias Yeh, Joseph Kaufman, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson calculates dose, dosing level and level of drug in the body for 194 drugs.
none;open-ended;students of medicine and the health sciences

Medical technology

A & P OF THE EYE (shp59;1979;unpublished)
Hugh B Encinias, Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson offers a review of the anatomy and physiology of the eye. Upon completion of the lesson the student should understand basic facts and terms related to the eye. At the end of the lesson are two quizzes - one on eye anatomy and one on the physiology of the eye.
none;none;students of optometry

ACTIONS AND USES OF OPHTHALMODIAGNOSTIC DRUGS (shp238;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson discusses the effect drugs have on the nervous system. Drugs that are commonly found in an optometry clinic are covered also, with the concentration being on ophthalmodiagnostic drugs.
none;none;students of optometry

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

AEROMEDICAL EVACUATION TECHNIQUES (shp294;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the United States Air Force Aeromedical Evacuation System and upon completion of the lesson the user should be able to understand the classification of patients to be transported and to assess the physical and emotional preparation of the patients.
none;none;physicians' assistants

AMETROPIA (shp62;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson will provide information enabling the user to recognize a refractive error from its description, draw a diagram representing an eye with and without a refractive error, describe the probable visual effects of various refractive errors, and explain to a patient what is optically wrong with his or her eyes.
none;none;students of optometry

ANALYSIS OF CARDIAC CATHETERIZATION DATA (cathdata;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
Given numerical values, this lesson provides a "computer" that analyzes cardiac catheterization data.
none;none;physicians' assistants

ANATOMICAL SCHEMATICS (shp15;1974;unpublished)
Michael W Smith
Sheppard Air Force Base, Texas
This lesson provides graphical drill and review of bones, ligaments, joints, muscles and visceral anatomy.
none;none;physicians' assistants

ASTHMA (shp101;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
In this lesson the student will learn to identify the symptoms of asthma and etiologic (causative) factors. Additionally, the user will become familiar with the modes of therapy for asthma and, given a specific patient, prescribe the appropriate therapy.
none;none;physicians' assistants

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART I
(shp105;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material that deals with the movement of fluids and protein molecules between the capillaries and the surrounding interstitial spaces.
none;none;physicians' assistants

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART II
(shp121;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material explaining the formation of edema as found in systemic circulation.
none;none;physicians' assistants

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION
(shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.
none;none;physicians' assistants

CATALOG OF ALLIED HEALTH SCIENCE LESSONS (alliedcat;1977;unpublished)
Lisa Brenner
School of Basic Medical Sciences, Univ. of Illinois
This lesson provides an index to allied health science lessons.
optional touch panel;open-ended;persons interested in the health sciences

CHRONIC BRONCHITIS PART III (shp125;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson looks at the treatment of patients with chronic bronchitis.
none;none;physicians' assistants

CHRONIC BRONCHITIS PART II (shp123;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson presents the laboratory studies used to determine the severity of bronchitis.
none;none;physicians' assistants

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

CIRCULATION, NERVES, SALIVARY GLANDS (shp18;1974;unpublished)
David R Stutz, Brian Hasse
Sheppard Air Force Base, Texas
This lesson teaches the student to name and state the basic functions of salivary glands and associated arteries, veins, lymphatics and nerves. There is a quiz at the end.
none;none;dental assistants

CLASSIFICATION OF CONTRAST MEDIA (shp147;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the classification of contrast media by positive or negative catagories, and by group names: alimentary tract radiopaques, cholecystopaques, water soluble radiopaques and viscous and/or oily radiopaques.
microfiche;none;x-ray technicians

COLD AGGLUTININS (shp107;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson treating the cold agglutinin test for pneumonia, the student should be able to properly collect and transport specimens for cold agglutinin titers and utilize test results as an aid in diagnosis of atypical pneumonia.
none;none;physicians' assistants

CONTACT DERMATITIS (shp130;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the immune response that causes contact dermatitis.
none;none;physicians' assistants

CONTRAST MEDIA AND PHOTON ABSORPTION (shp135;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the process by which contrast media improve visualization of soft tissue structures. There is an exercise at the end of the lesson.
microfiche;none;x-ray technicians

s115

CONTRAST MEDIA AND THEIR APPLICATIONS (shp134;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the purpose of contrast media and their effect on the selective absorption of x-radiation by a structure, and identifies the type of contrast media appropriate for specific procedures.
none;none;x-ray technicians

CONTROL AND REGULATION OF RESPIRATION (shp88;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the student to identify the areas of the brain stem that control and regulate alveolar ventilation, the humoral agents that regulate normal patterns of ventilation, the clinical disorders that stimulate or depress ventilation, and the most common abnormal pattern of ventilation.
none;none;physicians' assistants

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.
none;none;physicians' assistants

DENTITION (shp115;1975;unpublished)
Daniel L Henkel, R M Kimball
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the teeth and identify them using the Air Force numbering system. The eruption schedules for both permanent and deciduous teeth will be discussed. Additionally, the largest, smallest and longest, as well as the surfaces of the teeth, will be identified. There is a quiz at the end.
none;none;dental assistants

DIETITIANS' CALCULATIONS (shp35;1974;unpublished)
R M Kimball
Sheppard Air Force Base, Texas
This lesson calculates dietary information needed by dietitians, based on meal distribution or nutrient calculations.
none;open-ended;dietitians

s116

ELECTRICAL HAZARDS AND PROTECTION (shp216;1977;1981)
Neil D Horowitz
Sheppard Air Force Base, Texas
In this lesson the student learns to identify the sources of electrical hazards within the radiology department, describe the physical and physiological effects of electrical shock, state the precautions necessary to reduce electrical hazards and describe the importance of a common ground when using equipment during special procedures.
none;none;physicians' assistants

EMERGENCY TREATMENT OF OCULAR TRAUMA (shp167;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson teaches the emergency techniques used in the treatment of chemical, radiation and mechanical trauma and describes the use and proper documentation of the patients' medical records as they relate to the eye.
none;none;students of optometry

EMERGENCY TREATMENT OF PATIENT REACTIONS TO CONTRAST MEDIA (shp138;1976;1981)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson teaches the student to identify the signs and symptoms of histamine imbalance and hemodynamic reactions. The emergency tray and the responsibilities and limitations of the x-ray technician are also described.
none;none;x-ray technicians

ETHICAL RESPONSIBILITIES (shp300;1978;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson discusses the ethical responsibilities of a medical service specialist in professional and patient relationships.
none;none;students of the health sciences

ETIOLOGY OF THROMBOTIC EMBOLISM (shp48;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the abnormalities that initiate thrombosis.
none;none;physicians' assistants

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EVERYTHING YOU WANTED TO KNOW ABOUT CONTACT LENSES BUT WERE AFRAID TO ASK (shp250;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson begins with a discussion of the types of Air Force personnel eligible for contact lens exams and contact lenses. The manufacture, modification and measure of lenses are treated as well as proper hygiene, insertion and removal techniques. Additionally, the advantages and disadvantages of hard and soft lenses are presented.

none;none;students of optometry

FACTORS WHICH AFFECT ALLERGIC RESPONSE (shp126;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

This lesson treats the factors that may alter a patient's responsiveness to allergens as well as those that may contribute to the development of allergy symptoms.

none;none;physicians' assistants

GEOMETRICAL OPTICS (shp203;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.

none;none;students of optometry

HOW TO ORDER PUBLICATIONS AND FORMS (admnpub3;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas

This lesson provides some background on the various offices involved in the distribution of Air Force publications and forms. It teaches the user to order publications and forms on Air Force Form 764a.

none;30 minutes;Air Force personnel/general

IMMUNIZATIONS (shp302;1979;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas

This lesson teaches basic facts and principles related to immunization. A glossary of unfamiliar terms is available throughout the lesson.

none;none;students of the health sciences

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART III
(shp128;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson summarizes the various types of pneumonia, classifying them according to the micro-organism that causes the infection. Specifically covered are: epidemiology, subjective and objective data, pathology, diagnosis and treatment.
none;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART II
(shp116;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the laboratory studies, data analysis, and treatment associated with infectious infiltrative lung disease.
slides;none;physicians' assistants

INHALED ALLERGENS (shp118;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson treats the subject of allergens absorbed by inhalation, namely allergens transported by air currents and drafts.
none;none;physicians' assistants

INTRAPULMONARY PRESSURES (shp106;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn how intrapulmonary pressure develops and what is its significance, and why the lungs expand at the initiation of inspiration.
none;none;physicians' assistants

INTRAVENOUS THERAPY (shp305;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the student to select procedures and reportable observations related to intravenous injections, intravenous infusions and intravenous transfusions.
none;none;physicians' assistants

INTRODUCTION TO AIR FORCE PUBLICATIONS (admnpubl;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson discusses the two kinds of Air Force publication libraries, the standard publications numbering system, and the uses of the AFR 0-2 and the AFR 0-9 publications.
none;30 minutes;Air Force personnel/general

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.
none;none;students of optometry

INTRODUCTION TO RESPIRATION AND VENTILATION, PART II (shp109;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the air conduction passageways that are involved in the process of pulmonary ventilation.
touch panel;none;physician's assistants

LABORATORY TESTS (shp29;1974;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides an index to laboratory procedures for physician's assistants.
none;open-ended;physicians' assistants

LATENT IMAGE PATIENT PROBLEM (shp27;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson offers a simulation in which a 34 year old female Air Force nurse is seen in a walk-in clinic because of dyspnea. The student must gather history, physical and laboratory data, make a diagnosis and prescribe the correct measures to be taken.
none;none;physicians' assistants

MANAGEMENT OF PULMONARY EMBOLISM (shp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.
none;none;physicians' assistants

MATH PRETEST (shp303;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This is a pretest that determines whether or not the student needs to complete the mathematics lessons offered to users studying to be physician's assistants. Areas covered are: addition, subtraction and multiplication of signed and unsigned numbers, division of decimals, conversion of fractions to decimals and metric units of length.
none;120 minutes allowed;physicians' assistants

MEDICAL TERMINOLOGY GLOSSARY (shp258;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides a large glossary of medical terms which can be selected from either an alphabetical listing or from a functional listing.
none;open-ended;physicians' assistants

METRIC CONVERSION DRILL (shp183;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson provides drills consisting of 5 randomly generated metric conversion problems using the common prefixes.
none;open-ended;physicians' assistants

METRIC SYSTEM (shp136;1979;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson the student should be able to state the basic metric units for measuring length, mass and volume, and perform conversions between units in the metric system using the correct prefixes and symbols.
none;none;physicians' assistants

METRIC UNITS OF LENGTH (shp304;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the meter, centimeter and millimeter, which are the metric units of length.
none;none;physicians' assistants

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

OPHTHALMIC OPTICS (shp17;1974;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and offers practice with terminology, ophthalmic lens forms, aberrations in lenses and transposition of eyewear prescriptions.
none;none;students of optometry

OPHTHALMIC TOPICAL ANESTHETICS (shp308;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
This lesson treats the selection and use of ophthalmic topical anesthetics. The accepted and safe procedure for instillation of ophthalmic drops is also described.
none;none;students of optometry

OPTOMETRY SPECIALIST: THE DEVELOPMENT OF THE OPTOMETRY CLINIC (shp219;1977;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson presents the basic facts pertaining to the mission, organization, development and function of the medical service and the optometry clinic.
none;none;students of optometry

ORAL MUSCLES AND MUCOSA (shp149;1976;unpublished)
Gerald J Roseman, R M Kimball, Michael W Smith
Sheppard Air Force Base, Texas
This lesson teaches the student the names and locations of the major muscles used for chewing, facial expression and motion of the tongue. Also described are the names, functions and locations of the mucosal structures in the mouth.
none;none;physicians' assistants

ORGANIZATION OF THE HUMAN BODY (shp279;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson defines anatomy, physiology, and anatomical position, and provides descriptions of cell, tissues, membranes, organs and systems of the body. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

OXYGEN TRANSPORT (shp119;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.
none;none;physicians' assistants

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

PHARMACOLOGY (shp189;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides some basic facts and principles related to pharmacology, sources of drug information, properties of drugs, and the proper handling of controlled drugs.
none;none;pharmacists' assistants

PRESSURE-VOLUME RELATIONSHIP BOYLE'S LAW (shp70;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson discusses one of the fundamental laws of the behavior of gases - Boyle's Law.
none;none;physicians' assistants

PROFESSIONAL AND PATIENT RELATIONS (shp244;1974;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson treats the subjects of professional standards of conduct, patient data confidentiality and conflict of interests.
none;none;physicians' assistants

PUBLICATIONS LIBRARIES (admnpub2;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the user to differentiate between a Master Publications Library and a Functional Publications Library, to file publications in a Functional Publications Library, and to keep publications current by posting changes and supplements to the basic publications.
none;30 minutes;Air Force personnel/general

PULMONARY VOLUMES AND CAPACITIES (shp58;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the four lung volumes and match each to its respective volume, and name the four lung capacities and identify the lung volumes that are included in each capacity.
none;none;physicians' assistants

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.
none;none;physicians' assistants

SALIVA (shp198;1977;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses saliva and its functions in the mouth as it digests starches, enchances taste, cleans and lubricates.
none;none;dental assistants

SEASONAL ALLERGENS AND SKIN TESTS (shp67;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses skin tests related to seasonal allergens (pollens and fungal spores).
none;none;physicians' assistants

SENSITIVITY TO ANTIBIOTICS (shp61;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson defines antibiotics and discusses antibiotic sensitivity testing.
none;none;physicians' assistants

SHEPPARD AIR FORCE BASE LESSON CATALOG (;1979;unpublished)
Timothy R McKee
Sheppard Air Force Base, Texas
This index lists the lessons developed at the School of Health Care Sciences, Sheppard Air Force Base, Texas. The lessons are indexed functionally and alphabetically. Users can access the lessons from the index for the purpose of examination. This catalog is found in the processor lesson "shpcat".
none;open-ended;health care science students

SPUTUM (shp110;1975;unpublished)
  Robert E LaCoe
  Sheppard Air Force Base, Texas
    This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
  none;none;physicians' assistants

STRUCTURES AND FUNCTIONS OF THE SKELETAL SYSTEM (shp289;1978;unpublished)
  Richard L Mosley
  Sheppard Air Force Base, Texas
    This lesson describes the function of bones, and diagrams and labels the skeletal system. A glossary of unfamiliar terms is available throughout the lesson.
  none;none;students of the health sciences

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
  Hugh B Encinias
  Sheppard Air Force Base, Texas
    This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
  none;none;persons interested in health science information

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
  Richard L Mosley
  Sheppard Air Force Base, Texas
    After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
  none;none;students of the health sciences

STRUCTURES AND FUNCTIONS OF THE NERVOUS SYSTEM (shp222;1977;unpublished)
  Richard L Mosley
  Sheppard Air Force Base, Texas
    This lesson covers the divisions of the nervous system, the structure of a neuron, and the functions of the different types of neurons within the nervous system. Definitions of unfamiliar terms are available throughout the lesson.
  none;none;students of the health sciences

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS (shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.

none;none;students of the health sciences

THE EXTRAOCULAR MUSCLES (shp260;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson discusses the six extraocular muscles and the origin, insertion and action of each muscle. The student will learn to perform the Cover Test, Diagnostic H Test and Worth 4-Dot Test and to properly record the results of these tests.

none;none;students of optometry

THE NATURE OF HEMOGLOBIN (shp117;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas

This lesson defines the terms used to describe the hemoglobin form and function and identifies the physical and chemical characteristics of the molecule. The details of hemoglobin interaction with oxygen and carbon dioxide in the blood are also presented.

none;none;physicians' assistants

THE OCULAR ADNEXA (shp311;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson presents the function and location of each of the major structures of the ocular adnexa, lists the nerves which supply the eye and its adnexa, and gives the location of each of the bones of the orbit.

none;none;students of optometry

THE VISUAL FIELD (shp23;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.

none;none;students of optometry

UPPER AIRWAY DISEASE PART 2 (shp36;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson simulates a physical examination that concentrates on the nose and nasal passageways, the chest, the ears, and the nasopharynx and oropharynx. The student is asked questions along the way to test his or her understanding of the material.
none;none;physicians' assistants

VENTILATION OF THE ALVEOLI (shp74;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses minute respiratory volume, alveolar ventilation, air conduction passageways, and methods of taking rate and volume measurements.
none;none;physicians' assistants

VISION TRAINING (shp206;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines Vision Training (VT), differentiating between VT and Orthoptics. Reasons for prescribing VT are covered and the student should learn to predict the prognosis of various VT candidates. Some clinical and home procedures for treatment of heterotropia, amblyopia and accommodative problems are also discussed.
none;none;students of optometry

VISUAL ACUITY TESTING THEORY (shp290;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses types of visual acuity and some of the ways in which vision is measured.
none;none;students of optometry

WATER SOLUBLE RADIOPAQUES (shp148;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the largest, most versatile group of contrast media, the water soluble radiopaques.
microfiche;none;x-ray technicians

Medicine--Terminology

MEDICAL TERMINOLOGY GLOSSARY (shp258;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides a large glossary of medical terms which can be selected from either an alphabetical listing or from a functional listing.
none;open-ended;physicians' assistants

Medicine, Chinese

CHINA STUDY TOUR (chinast;1980;unpublished)
Ralph E Schooley
Medical Computing Laboratory, University of Illinois

This lesson documents a tour of China made by members of the University of Illinois College of Medicine in order to observe clinical medicine practices, medical research methods, and medical education facilities in the People's Republic. Many of the interesting extracurricular aspects of the tour are included in the presentation.

optional touch panel;none;general

Medicine, Clinical

PEDIATRICS I (peds1;1978,80;unpublished)
David Rivera
University of Illinois Medical Schools

The purpose of this lesson is to aid in the assessment of the student's basic science and clinical knowledge concerning pediatrics. Of 200 possible questions, 50 are randomly presented in each trial and the lesson can be used again and again for review.

none;none;medical students

Metric system

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois

This index provides a collection of lessons dealing with mathematics skills needed in early science courses.

none;variable;high school students

CONVERSION OF METRIC MEASUREMENTS TO ENGLISH MEASUREMENTS (abe25;1973;unpublished)
Frank C Dare
U. S. Army Ordnance Center and School, Aberdeen, Md.

This lesson gives the student practice in converting metric measurements to English measurements and vice versa. The instruction is followed by a quiz.

none;none;general; persons interested in automobile mechanics

METRIC CONVERSION DRILL (shp183;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

This lesson provides drills consisting of 5 randomly generated metric conversion problems using the common prefixes.

none;open-ended;physicians' assistants

METRIC DRILL I: CHOOSING REASONABLE UNITS
(metdrila;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct units of length, mass and volume when given sample problems.
none;open-ended;high school students

METRIC DRILL II: CHOOSING REASONABLE NUMBERS
(metdrilb;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct numbers when estimating units of length, mass and volume in sample problems.
none;open-ended;high school students

METRIC DRILL III: CHOOSING REASONABLE MEASURES
(metdrilc;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to estimate correct measures of length, mass and volume when given sample problems.
none;open-ended;high school students

METRIC SYSTEM (shp136;1979;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson the student should be able to state the basic metric units for measuring length, mass and volume, and perform conversions between units in the metric system using the correct prefixes and symbols.
none;none;physicians' assistants

METRIC UNITS OF LENGTH (shp304;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the meter, centimeter and millimeter, which are the metric units of length.
none;none;physicians' assistants

Micrometer

READING THE MICROMETER CALIPER (abe4;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the parts of a micrometer and to interpret the readings of a micrometer. The student may choose to take a pretest or to take a test at the end of the lesson.
none;60 minutes;vocational students

Motor vehicles--Pollution control devices

EMISSION CONTROLS (cha3;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of automobile emission control and anti-pollution devices. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

Mouth--Innervation

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

Mouth--Muscles

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

ORAL MUSCLES AND MUCOSA (shp149;1976;unpublished)
Gerald J Roseman, R M Kimball, Michael W Smith
Sheppard Air Force Base, Texas
This lesson teaches the student the names and locations of the major muscles used for chewing, facial expression and motion of the tongue. Also described are the names, functions and locations of the mucosal structures in the mouth.
none;none;physicians' assistants

Multiplication

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

THE FOURS PROBLEM (fourprob;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Musculoskeletal system

SKELETAL MUSCLE PHYSIOLOGY, PART III (muscle3;1979,80;1981)
Kim Cooper, Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to introduce the student to the energetics and specializations of skeletal muscle.
none;none;first year medical students

Music

Theory and fundamentals

WELT - WELL TEMPERED FREQUENCY RATIOS FOR VARIABLE DIVISIONS OF THE OCTAVE (welt;1980;unpublished)
William Schaeffer
University of Illinois
The purpose of this lesson is to allow the user to calculate the frequency ratios of the notes of the scales that divide the octave into any number of well tempered divisions and to compare these with the frequency ratios of the just tempered scale. Help is available.
may be used with the music box;open-ended;students of music

Musical pitch

SIMON (simon;1980;unpublished)
Daniel R LaBerge
University of Illinois
Simon is a music game for the Gooch Synthetic Woodwind. PLATO plays a sequence of notes and the user must play the same sequence back to PLATO. There are three levels of difficulty from which to choose.
Gooch Synthetic Woodwind;open-ended;general

WELT - WELL TEMPERED FREQUENCY RATIOS FOR VARIABLE DIVISIONS OF THE OCTAVE (welt;1980;unpublished)
William Schaeffer
University of Illinois
The purpose of this lesson is to allow the user to calculate the frequency ratios of the notes of the scales that divide the octave into any number of well tempered divisions and to compare these with the frequency ratios of the just tempered scale. Help is available.
may be used with the music box;open-ended;students of music

Navigation (Aeronautics)

HOLDING PATTERNS, AN INTRODUCTION (holding;1981;unpublished)
Stanley R Trollip
Institute of Aviation, University of Illinois
This lesson discusses areas of flight holding patterns that cause problems and is intended for use by persons who either have read or have been given ground instruction on holding patterns.
none;none;students of aviation

727 FD108 FLIGHT DIRECTOR (fd108a;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to identify and locate the components associated with the 727 Flight Director.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - PROFICIENCY CHECK (fd108d;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
This lesson provides a sequence of simulation exercises that provides the user with an opportunity to demonstrate skill in operating the FD108 flight director system, based on the "727 FD108 Flight Director" lessons.
none;none;student pilots

727 FD108 FLIGHT DIRECTOR - ABNORMAL OPERATIONS (fd108c;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user should be able to recognize failure flags, identify the problem, and select the appropriate corrective action(s) required to reinstate the failed flight director system, where possible, in flight.
touch panel;none;student pilots

727 FD108 FLIGHT DIRECTOR - NORMAL PROCEDURES (fd108b;1977,79;unpublished)
Gene Brown, Jerry Plemons, Craig Burson
American Airlines / FAA Academy
After completing this lesson the user will be able to perform normal procedures in all modes of operation during exercises simulating operation of the Collins FD108.
none;none;student pilots

Negligence

FORESEEABILITY IN NEGLIGENCE (palsgraf;1979;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson discusses and illustrates with an actual case the concept of foreseeability in negligence. The student is then presented with a hypothetical fact pattern and asked to analyze every possible combination of plaintiffs and defendants.
none;none;law students

Nephrology

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

Nephrology--Examinations, questions, etc.

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

Nerves--Anatomy

CRANIAL NERVES I (cranny;1978;1981)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson treats the functional classification of cranial nerves.
none;none;first year medical students

CRANIAL NERVES II (cranny2;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson presents the cranial nerve motor nuclei.
none;none;first year medical students

CRANIAL NERVES III (cranny3;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson deals with cranial nerve sensory nuclei.
none;none;first year medical students

Nerves, Cranial

CRANIAL NERVES I (cranny;1978;1981)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson treats the functional classification of cranial nerves.
none;none;first year medical students

CRANIAL NERVES II (cranny2;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson presents the cranial nerve motor nuclei.
none;none;first year medical students

CRANIAL NERVES III (cranny3;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois
This lesson deals with cranial nerve sensory nuclei.
none;none;first year medical students

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

Nervous system

AN INTRODUCTION TO ACTION POTENTIALS (neurophys1;1978;1981)
Eric Jakobsson, Michael Green
School of Basic Medical Science, Univ. of Illinois
This lesson treats the structure of the neuron, the permeability of biological membranes, the movement of ions across membranes, the resting membrane potential and the action potential and its propagation. A glossary of terms is provided.
none;none;first year medical students

SKELETAL MUSCLE PHYSIOLOGY, PART III (muscle3;1979,80;1981)
Kim Cooper, Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to introduce the student to the energetics and specializations of skeletal muscle.
none;none;first year medical students

STRUCTURES AND FUNCTIONS OF THE NERVOUS SYSTEM
(shp222;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson covers the divisions of the nervous system, the structure of a neuron, and the functions of the different types of neurons within the nervous system. Definitions of unfamiliar terms are available throughout the lesson.

none;none;students of the health sciences

Networks

Electric

VOLTAGE IN SERIES CIRCUITS (san46;1977;unpublished)
Jim Coady, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson teaches Kirchoff's voltage laws. The first law refers to the sum of the voltage drops in a series circuit. The second law concerns voltage drops across resistances of various values in a series circuit. At the end of the lesson there is a progress check.

none;none;students of electronics

Neuroanatomy

CRANIAL NERVES I (cranny;1978;1981)
Fred Zar
Abraham Lincoln Medical School, University of Illinois

This lesson treats the functional classification of cranial nerves.

none;none;first year medical students

CRANIAL NERVES II (cranny2;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois

This lesson presents the cranial nerve motor nuclei.

none;none;first year medical students

CRANIAL NERVES III (cranny3;1978;unpublished)
Fred Zar
Abraham Lincoln Medical School, University of Illinois

This lesson deals with cranial nerve sensory nuclei.

none;none;first year medical students

STRUCTURES AND FUNCTIONS OF THE NERVOUS SYSTEM
(shp222;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson covers the divisions of the nervous system, the structure of a neuron, and the functions of the different types of neurons within the nervous system. Definitions of unfamiliar terms are available throughout the lesson.

none;none;students of the health sciences

Neurons

AN INTRODUCTION TO ACTION POTENTIALS (neurophysl;1978;1981)
Eric Jakobsson, Michael Green
School of Basic Medical Science, Univ. of Illinois
This lesson treats the structure of the neuron, the permeability of biological membranes, the movement of ions across membranes, the resting membrane potential and the action potential and its propagation. A glossary of terms is provided.
none;none;first year medical students

STRUCTURES AND FUNCTIONS OF THE NERVOUS SYSTEM (shp222;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson covers the divisions of the nervous system, the structure of a neuron, and the functions of the different types of neurons within the nervous system. Definitions of unfamiliar terms are available throughout the lesson.
none;none;students of the health sciences

Neurophysiology

AN INTRODUCTION TO ACTION POTENTIALS (neurophysl;1978;1981)
Eric Jakobsson, Michael Green
School of Basic Medical Science, Univ. of Illinois
This lesson treats the structure of the neuron, the permeability of biological membranes, the movement of ions across membranes, the resting membrane potential and the action potential and its propagation. A glossary of terms is provided.
none;none;first year medical students

SKELETAL MUSCLE PHYSIOLOGY, PART III (muscle3;1979,80;1981)
Kim Cooper, Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to introduce the student to the energetics and specializations of skeletal muscle.
none;none;first year medical students

Nomenclature

Organic chemistry

ALKANE NOMENCLATURE (alkchem;1980;1981)
Doris C Blumenthal, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson provides practice in the naming of alkane molecules.
none;open-ended;students of medicine and the health sciences

ORGANIC NOMENCLATURE (orgnom;1980;unpublished)
Kenneth Kahn, Joseph Kaufman
College of Pharmacy, U of I Medical Center
This lesson tests the student's ability to name a chemical compound given its structural formula. The convention used is that of the International Union of Pure and Applied Chemistry.
none;open-ended;students of medicine and the health sciences

Nutrition

DIETARY ANALYSIS (diaral;1976;unpublished)
Frances M LaFont
School of Human Resources and Family Studies, U of I
This lesson provides experience in analyzing diets for nutrient content.
none;open-ended,nutrition students

Octal system

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City
Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.
none;60 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.
none;30 minutes;students of electronics

NUMBER SYSTEMS (afs1;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City
In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.
none;30 minutes;students of electronics

Ohmmeter

USE OF THE SIMPSON MUTLIMETER TO MEASURE RESISTANCE
(san5;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy

This lesson is designed to help the user arrive at the proper connection of the Simpson multimeter to measure resistance when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.

none;none;students of electronics

Ophthalmology

A & P OF THE EYE (shp59;1979;unpublished)
Hugh B Encinias, Richard M Stawicki
Sheppard Air Force Base, Texas

This lesson offers a review of the anatomy and physiology of the eye. Upon completion of the lesson the student should understand basic facts and terms related to the eye. At the end of the lesson are two quizzes - one on eye anatomy and one on the physiology of the eye.

none;none;students of optometry

ACTIONS AND USES OF OPHTHALMODIAGNOSTIC DRUGS
(shp238;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson discusses the effect drugs have on the nervous system. Drugs that are commonly found in an optometry clinic are covered also, with the concentration being on ophthalmodiagnostic drugs.

none;none;students of optometry

AMETROPIA (shp62;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson will provide information enabling the user to recognize a refractive error from its description, draw a diagram representing an eye with and without a refractive error, describe the probable visual effects of various refractive errors, and explain to a patient what is optically wrong with his or her eyes.

none;none;students of optometry

EMERGENCY TREATMENT OF OCULAR TRAUMA (shp167;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson teaches the emergency techniques used in the treatment of chemical, radiation and mechanical trauma and describes the use and proper documentation of the patients' medical records as they relate to the eye.

none;none;students of optometry

EVERYTHING YOU WANTED TO KNOW ABOUT CONTACT LENSES BUT WERE AFRAID TO ASK (shp250;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson begins with a discussion of the types of Air Force personnel eligible for contact lens exams and contact lenses. The manufacture, modification and measure of lenses are treated as well as proper hygiene, insertion and removal techniques. Additionally, the advantages and disadvantages of hard and soft lenses are presented.
none;none;students of optometry

GEOMETRICAL OPTICS (shp203;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.
none;none;students of optometry

HORIZONTAL EYE MOVEMENT (eyemove;1980;unpublished)
Brian A Curtis, Peggy E Dengler, Michael R Hughes
School of Basic Medical Sciences, Univ. of Illinois
This review and drill on horizontal eye movement discusses deficits in the nervous control system to those muscles which lead to doubles in vision.
none;none;medical students and students of the health sciences

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.
none;none;students of optometry

INTRODUCTORY BASIC OPTICS (shp142;1976;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This study of vision discusses several theories of light propagation, describes important characteristics of light, and defines laws and characteristics of reflection and refraction. There is a quiz at the end.
none;none;students of optometry

OPHTHALMIC OPTICS (shp17;1974;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and offers practice with terminology, ophthalmic lens forms, aberrations in lenses and transposition of eyewear prescriptions.
none;none;students of optometry

OPHTHALMIC TOPICAL ANESTHETICS (shp308;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
This lesson treats the selection and use of ophthalmic topical anesthetics. The accepted and safe procedure for instillation of ophthalmic drops is also described.
none;none;students of optometry

OPTOMETRY SPECIALIST: THE DEVELOPMENT OF THE OPTOMETRY CLINIC (shp219;1977;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson presents the basic facts pertaining to the mission, organization, development and function of the medical service and the optometry clinic.
none;none;students of optometry

THE EXTRAOCULAR MUSCLES (shp260;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the six extraocular muscles and the origin, insertion and action of each muscle. The student will learn to perform the Cover Test, Diagnostic H Test and Worth 4-Dot Test and to properly record the results of these tests.
none;none;students of optometry

THE OCULAR ADNEXA (shp311;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson presents the function and location of each of the major structures of the ocular adnexa, lists the nerves which supply the eye and its adnexa, and gives the location of each of the bones of the orbit.
none;none;students of optometry

THE VISUAL FIELD (shp23;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.
none;none;students of optometry

VISION TRAINING (shp206;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines Vision Training (VT), differentiating between VT and Orthoptics. Reasons for prescribing VT are covered and the student should learn to predict the prognosis of various VT candidates. Some clinical and home procedures for treatment of heterotropia, amblyopia and accommodative problems are also discussed.
none;none;students of optometry

VISUAL ACUITY TESTING THEORY (shp290;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses types of visual acuity and some of the ways in which vision is measured.
none;none;students of optometry

Optics

ACTIONS AND USES OF OPHTHALMODIAGNOSTIC DRUGS (shp238;1978;unpublished)
Richard L Mosley
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s143

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none;none;students of optometry

Oral contraceptives

CONTRACEPTIVE METHODS (prevent;1979,80;1981)
Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson highlights select features pertinent to the use of some of the available contraceptive methods.
none;none;medical students and students of the health sciences

Oral mucosa

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

ORAL MUSCLES AND MUCOSA (shp149;1976;unpublished)
Gerald J Roseman, R M Kimball, Michael W Smith
Sheppard Air Force Base, Texas
This lesson teaches the student the names and locations of the major muscles used for chewing, facial expression and motion of the tongue. Also described are the names, functions and locations of the mucosal structures in the mouth.
none;none;physicians' assistants

Palpation

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

Paramedical education

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none;none;students of optometry

ACTIVE TRANSPORT (shp25;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the method by which ions move back and forth across membranes, technically known as "active transport".
none;none;physicians' assistants

AEROMEDICAL EVACUATION TECHNIQUES (shp294;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the United States Air Force Aeromedical Evacuation System and upon completion of the lesson the user should be able to understand the classification of patients to be transported and to assess the physical and emotional preparation of the patients.
none;none;physicians' assistants

s146

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Louis V Genco
Sheppard Air Force Base, Texas
This lesson will provide information enabling the user to recognize a refractive error from its description, draw a diagram representing an eye with and without a refractive error, describe the probable visual effects of various refractive errors, and explain to a patient what is optically wrong with his or her eyes.
none;none;students of optometry

ANALYSIS OF CARDIAC CATHETERIZATION DATA (cathdata;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
Given numerical values, this lesson provides a "computer" that analyzes cardiac catheterization data.
none;none;physicians' assistants

ANATOMICAL SCHEMATICS (shp15;1974;unpublished)
Michael W Smith
Sheppard Air Force Base, Texas
This lesson provides graphical drill and review of bones, ligaments, joints, muscles and visceral anatomy.
none;none;physicians' assistants

ASTHMA (shp101;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
In this lesson the student will learn to identify the symptoms of asthma and etiologic (causative) factors. Additionally, the user will become familiar with the modes of therapy for asthma and, given a specific patient, prescribe the appropriate therapy.
none;none;physicians' assistants

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART II (shp121;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material explaining the formation of edema as found in systemic circulation.
none;none;physicians' assistants

CAPILLARY FLUID DYNAMICS: SYSTEMIC CIRCULATION PART I
(shp105;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson presents material that deals with the movement of fluids and protein molecules between the capillaries and the surrounding interstitial spaces.
none;none;physicians' assistants

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION
(shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.
none;none;physicians' assistants

CATALOG OF ALLIED HEALTH SCIENCE LESSONS (alliedcat;1977;unpublished)
Lisa Brenner
School of Basic Medical Sciences, Univ. of Illinois
This lesson provides an index to allied health science lessons.
optional touch panel;open-ended;persons interested in the health sciences

CHRONIC BRONCHITIS PART III (shp125;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson looks at the treatment of patients with chronic bronchitis.
none;none;physicians' assistants

CHRONIC BRONCHITIS PART II (shp123;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson presents the laboratory studies used to determine the severity of bronchitis.
none;none;physicians' assistants

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (shp92;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson defines chronic obstructive pulmonary disease and discusses the three major diseases that cause it.
none;none;physicians' assistants

CIRCULATION, NERVES, SALIVARY GLANDS (shp18;1974;unpublished)
David R Stutz, Brian Hasse
Sheppard Air Force Base, Texas
This lesson teaches the student to name and state the basic functions of salivary glands and associated arteries, veins, lymphatics and nerves. There is a quiz at the end.
none;none;dental assistants

CLASSIFICATION OF CONTRAST MEDIA (shp147;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the classification of contrast media by positive or negative catagories, and by group names: alimentary tract radiopaques, cholecystopaques, water soluble radiopaques and viscous and/or oily radiopaques.
microfiche;none;x-ray technicians

COLD AGGLUTININS (shp107;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson treating the cold agglutinin test for pneumonia, the student should be able to properly collect and transport specimens for cold agglutinin titers and utilize test results as an aid in diagnosis of atypical pneumonia.
none;none;physicians' assistants

CONTACT DERMATITIS (shp130;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the immune response that causes contact dermatitis.
none;none;physicians' assistants

CONTRAST MEDIA AND PHOTON ABSORPTION (shp135;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the process by which contrast media improve visualization of soft tissue structures. There is an exercise at the end of the lesson.
microfiche;none;x-ray technicians

CONTRAST MEDIA AND THEIR APPLICATIONS (shp134;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the purpose of contrast media and their effect on the selective absorption of x-radiation by a structure, and identifies the type of contrast media appropriate for specific procedures.
none;none;x-ray technicians

CONTROL AND REGULATION OF RESPIRATION (shp88;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

This lesson teaches the student to identify the areas of the brain stem that control and regulate alveolar ventilation, the humoral agents that regulate normal patterns of ventilation, the clinical disorders that stimulate or depress ventilation, and the most common abnormal pattern of ventilation.

none;none;physicians' assistants

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas

This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.

none;none;physicians' assistants

DENTITION (shp115;1975;unpublished)
Daniel L Henkel, R M Kimball
Sheppard Air Force Base, Texas

In this lesson the student will learn to name the teeth and identify them using the Air Force numbering system. The eruption schedules for both permanent and deciduous teeth will be discussed. Additionally, the largest, smallest and longest, as well as the surfaces of the teeth, will be identified. There is a quiz at the end.

none;none;dental assistants

ELECTRICAL HAZARDS AND PROTECTION (shp216;1977;1981)
Neil D Horowitz
Sheppard Air Force Base, Texas

In this lesson the student learns to identify the sources of electrical hazards within the radiology department, describe the physical and physiological effects of electrical shock, state the precautions necessary to reduce electrical hazards and describe the importance of a common ground when using equipment during special procedures.

none;none;physicians' assistants

EMERGENCY TREATMENT OF OCULAR TRAUMA (shp167;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson teaches the emergency techniques used in the treatment of chemical, radiation and mechanical trauma and describes the use and proper documentation of the patients' medical records as they relate to the eye.

none;none;students of optometry

EMERGENCY TREATMENT OF PATIENT REACTIONS TO CONTRAST MEDIA (shp138;1976;1981)
Lawrence Russell
Sheppard Air Force Base, Texas

This lesson teaches the student to identify the signs and symptoms of histamine imbalance and hemodynamic reactions. The emergency tray and the responsibilities and limitations of the x-ray technician are also described.

none;none;x-ray technicians

ETHICAL RESPONSIBILITIES (shp300;1978;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas

This lesson discusses the ethical responsibilities of a medical service specialist in professional and patient relationships.

none;none;students of the health sciences

ETIOLOGY OF THROMBOTIC EMBOLISM (shp48;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas

This lesson discusses the abnormalities that initiate thrombosis.

none;none;physicians' assistants

EVERYTHING YOU WANTED TO KNOW ABOUT CONTACT LENSES BUT WERE AFRAID TO ASK (shp250;1977;unpublished)
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none;none;students of optometry

FACTORS WHICH AFFECT ALLERGIC RESPONSE (shp126;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas

This lesson treats the factors that may alter a patient's responsiveness to allergens as well as those that may contribute to the development of allergy symptoms.

none;none;physicians' assistants

FEBRILE AGGLUTINATIONS (shp113;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson discusses the diseases for which febrile agglutinations are useful diagnostic aids, the significance of these tests, and the tests themselves. There is a quiz at the end.
none;none;physician's assistants

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Louis V Genco
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This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.
none;none;students of optometry

HOW TO ORDER PUBLICATIONS AND FORMS (admnpub3;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson provides some background on the various offices involved in the distribution of Air Force publications and forms. It teaches the user to order publications and forms on Air Force Form 764a.
none;30 minutes;Air Force personnel/general

IMMUNIZATIONS (shp302;1979;unpublished)
Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson teaches basic facts and principles related to immunization. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART III (shp128;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson summarizes the various types of pneumonia, classifying them according to the micro-organism that causes the infection. Specifically covered are: epidemiology, subjective and objective data, pathology, diagnosis and treatment.
none;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART II
(shp116;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the laboratory studies, data analysis, and treatment associated with infectious infiltrative lung disease.
slides;none;physicians' assistants

INHALED ALLERGENS (shp118;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson treats the subject of allergens absorbed by inhalation, namely allergens transported by air currents and drafts.
none;none;physicians' assistants

INTRAPULMONARY PRESSURES (shp106;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn how intrapulmonary pressure develops and what is its significance, and why the lungs expand at the initiation of inspiration.
none;none;physicians' assistants

INTRAVENOUS THERAPY (shp305;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the student to select procedures and reportable observations related to intravenous injections, intravenous infusions and intravenous transfusions.
none;none;physicians' assistants

INTRODUCTION TO AIR FORCE PUBLICATIONS (admnpubl;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson discusses the two kinds of Air Force publication libraries, the standard publications numbering system, and the uses of the AFR 0-2 and the AFR 0-9 publications.
none;30 minutes;Air Force personnel/general

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.
none;none;students of optometry

INTRODUCTION TO RESPIRATION AND VENTILATION, PART II
(shp109;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the air conduction passageways that are involved in the process of pulmonary ventilation.
touch panel;none;physician's assistants

LABORATORY TESTS (shp29;1974;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides an index to laboratory procedures for physician's assistants.
none;open-ended;physicians' assistants

LATENT IMAGE PATIENT PROBLEM (shp27;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson offers a simulation in which a 34 year old female Air Force nurse is seen in a walk-in clinic because of dyspnea. The student must gather history, physical and laboratory data, make a diagnosis and prescribe the correct measures to be taken.
none;none;physicians' assistants

MANAGEMENT OF PULMONARY EMBOLISM (skp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.
none;none;physicians' assistants

MATH PRETEST (shp303;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This is a pretest that determines whether or not the student needs to complete the mathematics lessons offered to users studying to be physician's assistants. Areas covered are: addition, subtraction and multiplication of signed and unsigned numbers, division of decimals, conversion of fractions to decimals and metric units of length.
none;120 minutes allowed;physicians' assistants

MEDICAL TERMINOLOGY GLOSSARY (shp258;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides a large glossary of medical terms which can be selected from either an alphabetical listing or from a functional listing.
none;open-ended;physicians' assistants

METRIC CONVERSION DRILL (shp183;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson provides drills consisting of 5 randomly generated metric conversion problems using the common prefixes.
none;open-ended;physicians' assistants

METRIC SYSTEM (shp136;1979;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson the student should be able to state the basic metric units for measuring length, mass and volume, and perform conversions between units in the metric system using the correct prefixes and symbols.
none;none;physicians' assistants

METRIC UNITS OF LENGTH (shp304;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the meter, centimeter and millimeter, which are the metric units of length.
none;none;physicians' assistants

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

OPHTHALMIC OPTICS (shp17;1974;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and offers practice with terminology, ophthalmic lens forms, aberrations in lenses and transposition of eyewear prescriptions.
none;none;students of optometry

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OPHTHALMIC TOPICAL ANESTHETICS (shp308;1978;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
This lesson treats the selection and use of ophthalmic topical anesthetics. The accepted and safe procedure for instillation of ophthalmic drops is also described.
none;none;students of optometry

ORAL MUSCLES AND MUCOSA (shp149;1976;unpublished)
Gerald J Roseman, R M Kimball, Michael W Smith
Sheppard Air Force Base, Texas
This lesson teaches the student the names and locations of the major muscles used for chewing, facial expression and motion of the tongue. Also described are the names, functions and locations of the mucosal structures in the mouth.
none;none;physicians' assistants

ORGANIZATION OF THE HUMAN BODY (shp279;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson defines anatomy, physiology, and anatomical position, and provides descriptions of cell, tissues, membranes, organs and systems of the body. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

OXYGEN TRANSPORT (shp119;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.
none;none;physicians' assistants

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.
stethoscope;none;physicians' assistants

PHARMACOLOGY (shp189;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides some basic facts and principles related to pharmacology, sources of drug information, properties of drugs, and the proper handling of controlled drugs.
none;none;pharmacists' assistants

PRESSURE-VOLUME RELATIONSHIP BOYLE'S LAW (shp70;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson discusses one of the fundamental laws of the behavior of gases - Boyle's Law.
none;none;physicians' assistants

PROFESSIONAL AND PATIENT RELATIONS (shp244;1974;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson treats the subjects of professional standards of conduct, patient data confidentiality and conflict of interests.
none;none;physicians' assistants

PUBLICATIONS LIBRARIES (admnpub2;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the user to differentiate between a Master Publications Library and a Functional Publications Library, to file publications in a Functional Publications Library, and to keep publications current by posting changes and supplements to the basic publications.
none;30 minutes;Air Force personnel/general

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.
none;none;physicians' assistants

SALIVA (shp198;1977;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses saliva and its functions in the mouth as it digests starches, enchances taste, cleans and lubricates.
none;none;dental assistants

SEASONAL ALLERGENS AND SKIN TESTS (shp67;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses skin tests related to seasonal allergens (pollens and fungal spores).
none;none;physicians' assistants

SENSITIVITY TO ANTIBIOTICS (shp61;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson defines antibiotics and discusses antibiotic sensitivity testing.
none;none;physicians' assistants

SHEPPARD AIR FORCE BASE LESSON CATALOG (;1979;unpublished)
Timothy R McKee
Sheppard Air Force Base, Texas
This index lists the lessons developed at the School of Health Care Sciences, Sheppard Air Force Base, Texas. The lessons are indexed functionally and alphabetically. Users can access the lessons from the index for the purpose of examination. This catalog is found in the processor lesson "shpcat".
none;open-ended;health care science students

SPUTUM (shp110;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
none;none;physicians' assistants

STRUCTURE AND FUNCTIONS OF THE EAR (shp45;1979;unpublished)
Richard L Mosley, Richard M Stawicki
Sheppard Air Force Base, Texas
This lesson diagrams and discusses the structure and functions of the outer, middle, and inner ear.
none;none;students of the health sciences

STRUCTURES AND FUNCTIONS OF THE CIRCULATORY SYSTEM (shp207;1977;unpublished)
Hugh B Encinias
Sheppard Air Force Base, Texas
This lesson defines and illustrates the different parts of the circulatory system. There is a short quiz after each section.
none;none;persons interested in health science information

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

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STRUCTURES AND FUNCTIONS OF THE NERVOUS SYSTEM
(shp222;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson covers the divisions of the nervous system, the structure of a neuron, and the functions of the different types of neurons within the nervous system. Definitions of unfamiliar terms are available throughout the lesson.
none;none;students of the health sciences

STRUCTURES AND FUNCTIONS OF THE SKELETAL SYSTEM
(shp289;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson describes the function of bones, and diagrams and labels the skeletal system. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS
(shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

THE EXTRAOCULAR MUSCLES (shp260;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses the six extraocular muscles and the origin, insertion and action of each muscle. The student will learn to perform the Cover Test, Diagnostic H Test and Worth 4-Dot Test and to properly record the results of these tests.
none;none;students of optometry

THE NATURE OF HEMOGLOBIN (shp117;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson defines the terms used to describe the hemoglobin form and function and identifies the physical and chemical characteristics of the molecule. The details of hemoglobin interaction with oxygen and carbon dioxide in the blood are also presented.
none;none;physicians' assistants

THE OCULAR ADNEXA (shp311;1978;unpublished)

Louis V Genco
Sheppard Air Force Base, Texas

This lesson presents the function and location of each of the major structures of the ocular adnexa, lists the nerves which supply the eye and its adnexa, and gives the location of each of the bones of the orbit.

none;none;students of optometry

THE VISUAL FIELD (shp23;1978;unpublished)

Louis V Genco
Sheppard Air Force Base, Texas

This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.

none;none;students of optometry

UPPER AIRWAY DISEASE PART 2 (shp36;1974;unpublished)

Brent C Seager
Sheppard Air Force Base, Texas

This lesson simulates a physical examination that concentrates on the nose and nasal passageways, the chest, the ears, and the nasopharynx and oropharynx. The student is asked questions along the way to test his or her understanding of the material.

none;none;physicians' assistants

VENTILATION OF THE ALVEOLI (shp74;1975;unpublished)

Brent C Seager
Sheppard Air Force Base, Texas

This lesson discusses minute respiratory volume, alveolar ventilation, air conduction passageways, and methods of taking rate and volume measurements.

none;none;physicians' assistants

VISION TRAINING (shp206;1978;unpublished)

Louis V Genco
Sheppard Air Force Base, Texas

This lesson defines Vision Training (VT), differentiating between VT and Orthoptics. Reasons for prescribing VT are covered and the student should learn to predict the prognosis of various VT candidates. Some clinical and home procedures for treatment of heterotropia, amblyopia and accommodative problems are also discussed.

none;none;students of optometry

VISUAL ACUITY TESTING THEORY (shp290;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses types of visual acuity and some of the ways in which vision is measured.
none;none;students of optometry

WATER SOLUBLE RADIOPAQUES (shp148;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the largest, most versatile group of contrast media, the water soluble radiopaques.
microfiche;none;x-ray technicians

Paramedical technology

OPTOMETRY SPECIALIST: THE DEVELOPMENT OF THE OPTOMETRY CLINIC (shp219;1977;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson presents the basic facts pertaining to the mission, organization, development and function of the medical service and the optometry clinic.
none;none;students of optometry

PULMONARY VOLUMES AND CAPACITIES (shp58;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the four lung volumes and match each to its respective volume, and name the four lung capacities and identify the lung volumes that are included in each capacity.
none;none;physicians' assistants

Patent laws and legislation

PRIORITY OF INVENTION (templatt;1977;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson discusses how a "first inventor" is chosen to receive a patent from among competing groups that independently invented the same concept.
none;none;law students

Pediatrics

PEDIATRICS I (peds1;1978,80;unpublished)
David Rivera
University of Illinois Medical Schools
The purpose of this lesson is to aid in the assessment of the student's basic science and clinical knowledge concerning pediatrics. Of 200 possible questions, 50 are randomly presented in each trial and the lesson can be used again and again for review.
none;none;medical students

Percentage

PRACTICE SOLVING PERCENT PROBLEMS (percent;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson presents five levels of common percent problems, ranging from basic calculations to standard word problems. After doing well at the first level the student is given the option of going on to the next level.
none;variable;high school students

Perimetry

THE VISUAL FIELD (shp23;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.
none;none;students of optometry

Pharmacology

Introductory materials

PHARMACOLOGY (shp189;1979;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson provides some basic facts and principles related to pharmacology, sources of drug information, properties of drugs, and the proper handling of controlled drugs.
none;none;pharmacists' assistants

EFFECTS OF DOSES, DOSING INTERVAL, AND INDIVIDUAL PARAMETERS STEADY STATE PLASM DRUG PROFILES (doses;1980;1981)
Paul Lasker, Paul Resch
College of Pharmacy, U of I Medical Center
This lesson provides a graphic display of the effects of varying dosages of drugs.
none;open-ended;students of medicine and health sciences

Pharmacy--Nomenclature

PHARMER - A GAME FOR PHUN WITH PHARMACY (pharmer;1980;unpublished)
Randall Lambert, Charles Guerra, Harlan McDaniel
College of Pharmacy, U of I Medical Center
This lesson is designed especially for students of pharmacy and other health professions who will come into contact with the use of drugs in the course of their professional practices. Pharmaceutical abbreviations, generic names and trade names are covered.
none;open-ended;students of pharmacy and health professions

Pharmacy—Statistical methods

PHARMACOKINETICS CALCULATIONS (pkinmod;1980;unpublished)
Tobias Yeh, Joseph Kaufman, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson calculates dose, dosing level and level of drug in the body for 194 drugs.
none;open-ended;students of medicine and the health sciences

Physician and patient

PROFESSIONAL AND PATIENT RELATIONS (shp244;1974;unpublished)
Wayne M Hean
Sheppard Air Force Base, Texas
This lesson treats the subjects of professional standards of conduct, patient data confidentiality and conflict of interests.
none;none;physicians' assistants

Physics, Elementary - Classical mechanics --Problems, exercises, etc.

A MULTIPLE CHOICE QUIZ IN ELEMENTARY PHYSICS (quiz;1976;unpublished)
Thomas Lemberger, Dennis Kane
Physics Department, University of Illinois, Urbana
This quiz in elementary physics provides 20 multiple-choice questions. The student is allowed one or two chances to correctly answer them.
none;none;students of elementary physics

THE APPROACH TO MECHANICS PROBLEMS (phquiz;1978;unpublished)
Daniel Beece
Physics Department, University of Illinois, Urbana
This lesson provides the student with practice in developing the ability to recognize the correct method or approach to solving a problem in physics.
touch panel;none;students of elementary physics

WHAT IS CONSERVED? (phcons;1978;unpublished)
Daniel Beece
Physics Department, University of Illinois, Urbana
This lesson gives the student the opportunity to develop the ability to recognize "what is conserved?", an important skill to have when solving problems in physics.
touch panel;none;students of elementary physics

Physiology

Blood

BLOOD COAGULATION QUIZZES (bcoag1;1976;1981)
Lawrence J Adams
Peoria School of Medicine of the University of Illinois
This lesson tests the student's familiarity with the stages of blood coagulation and the associated factor names.
none;none;first year medical students

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS (shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

Nervous system

SKELETAL MUSCLE PHYSIOLOGY, PART III (muscle3;1979,80;1981)
Kim Cooper, Ralph E Schooley
School of Basic Medical Sciences, Univ. of Illinois
This lesson is designed to introduce the student to the energetics and specializations of skeletal muscle.
none;none;first year medical students

Neurons

AN INTRODUCTION TO ACTION POTENTIALS (neurophys1;1978;1981)
Eric Jakobsson, Michael Green
School of Basic Medical Science, Univ. of Illinois
This lesson treats the structure of the neuron, the permeability of biological membranes, the movement of ions across membranes, the resting membrane potential and the action potential and its propagation. A glossary of terms is provided.
none;none;first year medical students

ORGANIZATION OF THE HUMAN BODY (shp279;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson defines anatomy, physiology, and anatomical position, and provides descriptions of cell, tissues, membranes, organs and systems of the body. A glossary of unfamiliar terms is available throughout the lesson.
none;none;students of the health sciences

A STUDY OF THE PATIENT WITH CIRCULATORY DISORDERS (shp46;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson presents the anatomy and physiology of the patient with a circulatory disorder and the related diagnostic and therapeutic procedures. Also discussed are special patient needs and the appropriate nursing care.
none;none;students of the health sciences

PLATO

Keyboard

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 1 HOW TO USE THE PLATO KEYBOARD (spintro;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This introductory Spanish lesson teaches the student to use the PLATO keyboard and discusses the advantages to be gained from using the PLATO system in a foreign language course.
none;none;persons interested in learning Spanish

INTRODUCTION TO PLATO (easyhelp;1981;unpublished)
Brent R Sweeny, Anthony Tomasic, Michael Olenick
Indiana University, College of Arts and Sciences
The authors of this very elementary introductory lesson included only those aspects of PLATO deemed really necessary for almost every student's survival on PLATO.
none;10 minutes;new users of PLATO

INTRODUCTION TO PLATO IN ROMANIZED JAPANESE (nyuumon;1979;unpublished)
J Marshall Unger, Mutsuyo Okumura Unger
E. Asian Languages, University of Hawaii, Manoa
This lesson provides an introduction to PLATO in Romanized Japanese. It is a translation of the lesson "udhlp", originally developed at the University of Delaware.
none;10-15 minutes;first year students of Japanese

WELCOME TO PLATO (shp150;1979;unpublished)
Neil D Horowitz
Sheppard Air Force Base, Texas
This lesson provides introduction to the PLATO keyboard, emphasizing the keys at the right side of the keyset.
none;none;general

PLATO "group" records

GROUP DATA RECORD EDITOR (dataed;1981;unpublished)
Brent R Sweeny
Indiana University, College of Arts and Sciences

This lesson enables the user to efficiently (using minimal computer memory) inspect or edit "data" records attached to a group. There are options to add or change names or records, as well as their contents, in alpha, floating, integer, octal or signed/unsigned segment modes. Help is available throughout.

none;open-ended;PLATO authors and instructors

Pneumonia

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART II (shp116;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas

This lesson discusses the laboratory studies, data analysis, and treatment associated with infectious infiltrative lung disease.

slides;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART III (shp128;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas

This lesson summarizes the various types of pneumonia, classifying them according to the micro-organism that causes the infection. Specifically covered are: epidemiology, subjective and objective data, pathology, diagnosis and treatment.

none;none;physicians' assistants

Pneumonia--Diagnosis

COLD AGGLUTININS (shp107;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas

Upon completion of this lesson treating the cold agglutinin test for pneumonia, the student should be able to properly collect and transport specimens for cold agglutinin titers and utilize test results as an aid in diagnosis of atypical pneumonia.

none;none;physicians' assistants

Poetics

APOETICA (apoet;1980;unpublished)
William Schaeffer
University of Illinois

This lesson contains a collection of experimental kinetic poetry.

none;open-ended;general

DIAMANTÉ (mac;1976;unpublished)
Eric Hagstrom, McClellan Rayfield, June Grant Shane
Indiana University, Bloomington, Indiana
This lesson steps the student through the creation process of an example of diamanté poetry. There are also samples of student work at the end of the lesson.
none;approximately 10 minutes;high school and college level

A HOUSE ON A HILL (ahouse;1979;unpublished)
William Schaeffer
University of Illinois
This lesson contains an interactive poem which reflects the choices the user selects from the options offered.
none;open-ended;general

Poetry--Authorship

DIAMANTÉ (mac;1976;unpublished)
Eric Hagstrom, McClellan Rayfield, June Grant Shane
Indiana University, Bloomington, Indiana
This lesson steps the student through the creation process of an example of diamanté poetry. There are also samples of student work at the end of the lesson.
none;approximately 10 minutes;high school and college level

Pollen

INHALED ALLERGENS (shp118;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson treats the subject of allergens absorbed by inhalation, namely allergens transported by air currents and drafts.
none;none;physicians' assistants

Pollution control equipment

EMISSION CONTROLS (cha3;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of automobile emission control and anti-pollution devices. A test is given at the end of the lesson.
none;none;persons interested in automobile mechanics

Pressure

PRESSURE-VOLUME RELATIONSHIP BOYLE'S LAW (shp70;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson discusses one of the fundamental laws of the behavior of gases - Boyle's Law.
none;none;physicians' assistants

Pressurized water reactors

REACTOR CONTROLS (reactor;1981;unpublished)
Wesley M Dunn
University of Illinois
This lesson diagrams and identifies the components of a pressurized water reactor and then demonstrates its operation.
none;none;general

Private flying

INSTRUMENT PILOT, AIRPLANE - WRITTEN EXAMINATION STUDY GUIDE (iflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for instrument pilot-airplane. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

INSTRUMENT PILOT, HELICOPTER - WRITTEN EXAMINATION STUDY GUIDE (hflight;1978;1980)
Stanley R Trollip, William C Entwistle,
Curt W Treichel
Institute of Aviation, U of I, Urbana, Illinois
This lesson allows the student pilot to practice taking the written examination for instrument pilot-helicopter. The user may choose to take a quiz over one major category, a quiz over one or more subcategories, or a general quiz over all categories.
supplemental handout;open-ended;student pilots

Probate courts

SURROGATE'S COURT (surrogate;1976;unpublished)
Robert C Platt, Judith E Grimes
Antioch Law School, Washington, D. C.
This lesson is designed with the student preparing to take the bar examination in mind. It deals with trusts and estate laws and provides drill on intestate distribution, elective shares and perpetuities.
none;none;second year law student

Probate law and practice

SURROGATE'S COURT (surrogate;1976;unpublished)
Robert C Platt, Judith E Grimes
Antioch Law School, Washington, D. C.
This lesson is designed with the student preparing to take the bar examination in mind. It deals with trusts and estate laws and provides drill on intestate distribution, elective shares and perpetuities.
none;none;second year law student

Programming languages (Electronic computers)
FORTRAN

FORTRAN ADVANCED FORMATTING (fortfmt2;1975;unpublished)
Andy Papamarcos, Nick Klein, David Dodgson,
Lawrence T Levy, Richard Montanelli
Computer Science Dept., University of Illinois

This advanced lesson in FORTRAN formatting covers general format code, repeating codes, multiple record input/output, column generating code, code for hexadecimal input/output, position of decimal point and execution-time format. There are exercises for student practice.

none;none;computer programming students

FORTRAN NESTED DO-LOOPS (fortnest;1979;1981)
Lawrence T Levy
Computer Science Department, University of Illinois

This lesson presents a discussion of the FORTRAN nested DO-loop. Familiarity with the FORTRAN If statement and basic knowledge of the DO statement is assumed.

none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT (fortread;1979;1981)
Lawrence T Levy
Computer Science Department, University of Illinois

This lesson provides an introduction to the format-free READ statement.

none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT (fortread2;1980;unpublished)
Lawrence T Levy
Computer Science Department, University of Illinois

This lesson treats the standard FORTRAN READ statement.

none;none;high school and college computer programming students

THE FORTRAN READ STATEMENT, PART II
(fortread1;1979;unpublished)
Lawrence T Levy
Computer Science Department, University of Illinois

This lesson continues the treatment of the FORTRAN READ statement with formats.

none;none;high school and college computer programming students

Protein biosynthesis

TRANSCRIPTIONAL CONTROL: THE LACTOSE OPERON
(geepsie;1978;unpublished)
Laurie E Shapiro
University of Connecticut School of Medicine

This is an interactive biochemical lesson that teaches basic concepts of transcriptional control, using the lactose operon as the model.

none;15-20 minutes;medical students and biochemistry students

Proximate cause (Law)

FORESEEABILITY IN NEGLIGENCE (palsgraf;1979;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.

This lesson discusses and illustrates with an actual case the concept of foreseeability in negligence. The student is then presented with a hypothetical fact pattern and asked to analyze every possible combination of plaintiffs and defendants.

none;none;law students

Pulmonary circulation

CAPILLARY FLUID DYNAMICS: PULMONARY CIRCULATION
(shp112;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

This lesson treats pulmonary circulation and specifically the pulmonary capillaries that surround the alveoli in the lungs.

none;none;physicians' assistants

INTRAPULMONARY PRESSURES (shp106;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

In this lesson the student will learn how intrapulmonary pressure develops and what is its significance, and why the lungs expand at the initiation of inspiration.

none;none;physicians' assistants

RESPIRATORY PRESSURES (shp57;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

With this lesson the student will learn to identify the terminology associated with respiratory pressures, to relate the movement of fluids into and out of the capillaries, and to identify the functional characteristics of the thoracic cage.

none;none;physicians' assistants

Pulmonary embolism

ETIOLOGY OF THROMBOTIC EMBOLISM (shp48;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the abnormalities that initiate thrombosis.
none;none;physicians' assistants

LATENT IMAGE PATIENT PROBLEM (shp27;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson offers a simulation in which a 34 year old female Air Force nurse is seen in a walk-in clinic because of dyspnea. The student must gather history, physical and laboratory data, make a diagnosis and prescribe the correct measures to be taken.
none;none;physicians' assistants

MANAGEMENT OF PULMONARY EMBOLISM (shp86;1975;unpublished)
Lawrence Russell
Sheppard Air Force Base, Texas
Discussed in this lesson are the treatment of pulmonary embolism, the use of anticoagulants, and the prevention of recurrence of pulmonary embolism.
none;none;physicians' assistants

Pupil (Eye)

THE PUPILLARY LIGHT REFLEX (puflex;1974;unpublished)
John Silver, Arvle E Marshall, Lloyd C Helper
College of Veterinary Medicine, Univ. of Illinois
This lesson provides five clinical cases illustrating the pupillary light reflex. Completion of the lesson should enable the student to test the pupillary light reflex and use that knowledge in assessing blindness and the extent of some types of lesions.
none;none;students of veterinary medicine

Radiation

RADIATION EFFECTS: AN INTRODUCTION (glow;1980;unpublished)
Hector Mandel
Environmental Health and Safety, University of Illinois
This lesson briefly discusses radiation as received by humans each year.
none;15-20 minutes;general

Radiators

AUTOMOTIVE COOLING SYSTEM (cha5;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson provides the student with the knowledge necessary to identify correctly all of the components of a cooling system and to describe the purpose of each component.
none;none;persons interested in automobile mechanics

Radiography

CLASSIFICATION OF CONTRAST MEDIA (shp147;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the classification of contrast media by positive or negative catagories, and by group names: alimentary tract radiopaques, cholecystopaques, water soluble radiopaques and viscous and/or oily radiopaques.
microfiche;none;x-ray technicians

CONTRAST MEDIA AND PHOTON ABSORPTION (shp135;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the process by which contrast media improve visualization of soft tissue structures. There is an exercise at the end of the lesson.
microfiche;none;x-ray technicians

CONTRAST MEDIA AND THEIR APPLICATIONS (shp134;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses the purpose of contrast media and their effect on the selective absorption of x-radiation by a structure, and identifies the type of contrast media appropriate for specific procedures.
none;none;x-ray technicians

EMERGENCY TREATMENT OF PATIENT REACTIONS TO CONTRAST MEDIA (shp138;1976; 1981)
Lawrence Russell
Sheppard Air Force Base, Texas
This lesson teaches the student to identify the signs and symptoms of histamine imbalance and hemodynamic reactions. The emergency tray and the responsibilities and limitations of the x-ray technician are also described.
none;none;x-ray technicians

WATER SOLUBLE RADIOPAQUES (shp148;1976;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson treats the largest, most versatile group of contrast media, the water soluble radiopaques.
microfiche;none;x-ray technicians

Radiology

ELECTRICAL HAZARDS AND PROTECTION (shp216;1977;1981)
Neil D Horowitz
Sheppard Air Force Base, Texas
In this lesson the student learns to identify the sources of electrical hazards within the radiology department, describe the physical and physiological effects of electrical shock, state the precautions necessary to reduce electrical hazards and describe the importance of a common ground when using equipment during special procedures.
none;none;physicians' assistants

Radiology, Medical--Safety measures

ELECTRICAL HAZARDS AND PROTECTION (shp216;1977;1981)
Neil D Horowitz
Sheppard Air Force Base, Texas
In this lesson the student learns to identify the sources of electrical hazards within the radiology department, describe the physical and physiological effects of electrical shock, state the precautions necessary to reduce electrical hazards and describe the importance of a common ground when using equipment during special procedures.
none;none;physicians' assistants

Ratio and proportion

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

Reading

READSTAR (readstar;1981;unpublished)
James W Boyd, Mary Van De Warker, Peter Klassen
College of DuPage, Glen Ellyn, Illinois
An adaptation of the Star Readability Program developed by General Motors Corporation, the program evaluates writing based on that program. By using the grade level equivalent generated by the lesson the user may project the approximate reader difficulty in reading and understanding printed materials.
none;5-10 minutes;persons interested in the study of reading

Recreational games

Board games

BLOCKOUT (blockout;1979;unpublished)
David Kibbey, Tom Layman
Comp.-based Educ. Res. Lab., University of Illinois

This is a two person board game in which each player has a game piece to move around the board in an up and down or diagonal direction. When one player hits a spot that is already occupied by the opponent, that player loses. Help is available.

none;open-ended;general

Card games

GIN RUMMY (shp211;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas

This lesson contains an on-line version of the card game gin rummy. Help is provided.

touch panel can be used;open-ended;general

SOLITAIRE (solitaire;1979;unpublished)
Norman R Fisher, Daniel R LaBerge
Comp.-based Educ. Res. Lab., University of Illinois

This lesson contains three versions of the game of Solitaire. One version is a betting game, another is a non-betting version and the third is an easy version that allows the player to go through the deck as many times as desired.

none;open-ended;general

Puzzles

5TH ORDER POLYOMINOES (polynom;1977;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

This lesson contains an on-line version of the mathematical recreational game called "Polyominoes". Complete instructions are provided.

none;none;general

Simulations

EMPRISE (emprise;1980,81;unpublished)
John Bryan, Laura Capek, Walter Brooks
Comp.-based Educ. Res. Lab., Unversity of Illinois

This is a game of adventure under the surface of the earth where the players are pitted against the monsters that dwell in the "dungeon".

none;open-ended;general

MAJOR LEAGUE BASEBALL (baseball;1981;unpublished)
Scott Johnson, Brendan McGinty, David Dennis
University of Illinois

This is an interterminal animated major league baseball simulation. All major league teams are represented by their current rosters. These players hit, run, pitch, throw and field with the same ability as in real life. As manager, the user has the same options as an actual manager. There are statistics available while playing the game.

none;20-40 minutes;general

Speed games

GLORIOUS (glorious;1980;unpublished)
Michael Stecyk, Brendan McGinty
University of Illinois, Urbana, Illinois

The object of this game of speed and skill is to defuse all the mines in a minefield. There are ten mines and sixty seconds are allowed for defusing them all.

none;open-ended;general

MAZEWAR (mazewar;1972;1980)
Louis Bloomfield
Urbana High School, Urbana, Illinois

This maze game is played between two terminals. The object of the game is for one player to make it through the maze to the opponent's side first.

none;open-ended;general

Sports

BATTERUP: A MAJOR LEAGUE BASEBALL SIMULATION (batterup;1980;unpublished)
Bret Robertson
University of Illinois

This simulation portrays the challenge of managing a major league baseball team. Players bat, field, run, and pitch according to their past performance statistics. Emphasis is on rapid, realistic play, and immediate statistical feedback on player performance.

none;10-20 minutes;general

MAJOR LEAGUE BASEBALL (baseball;1981;unpublished)
Scott Johnson, Brendan McGinty, David Dennis
University of Illinois

This is an interterminal animated major league baseball simulation. All major league teams are represented by their current rosters. These players hit, run, pitch, throw and field with the same ability as in real life. As manager, the user has the same options as an actual manager. There are statistics available while playing the game.

none;20-40 minutes;general

SPORTS LESSONS (sports;1981;unpublished)
Brendan McGinty, Jim Mayeda
University of Illinois
This lesson serves as an index to all of the sports related lessons on PLATO. There is also a signup list for people wanting to play interterminal sports simulations. The index was initially begun by Mark Nakada.
none;open-ended;general

Reflection (Optics)

INTRODUCTORY BASIC OPTICS (shp142;1976;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This study of vision discusses several theories of light propagation, describes important characteristics of light, and defines laws and characteristics of reflection and refraction. There is a quiz at the end.
none;none;students of optometry

Refraction

GEOMETRICAL OPTICS (shp203;1977;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses and gives practice with optical sign convention, special definitions, the meaning of "vergence", the diopter, and units of conversion.
none;none;students of optometry

INTRODUCTORY BASIC OPTICS (shp142;1976;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This study of vision discusses several theories of light propagation, describes important characteristics of light, and defines laws and characteristics of reflection and refraction. There is a quiz at the end.
none;none;students of optometry

Respiration

CONTROL AND REGULATION OF RESPIRATION (shp88;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson teaches the student to identify the areas of the brain stem that control and regulate alveolar ventilation, the humoral agents that regulate normal patterns of ventilation, the clinical disorders that stimulate or depress ventilation, and the most common abnormal pattern of ventilation.
none;none;physicians' assistants

CO_2 TRANSPORT (shp120;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas

This lesson presents the primary forms in which CO_2 is carried in the blood and teaches the student to name the products of the reaction of CO_2 with water, the enzyme which catalizes the reaction, and the mechanism by which hemoglobin aids in the transport of CO_2.

none;none;physicians' assistants

INTRAPULMONARY PRESSURES (shp106;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

In this lesson the student will learn how intrapulmonary pressure develops and what is its significance, and why the lungs expand at the initiation of inspiration.

none;none;physicians' assistants

INTRODUCTION TO RESPIRATION AND VENTILATION, PART II (shp109;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas

This lesson discusses the air conduction passageways that are involved in the process of pulmonary ventilation.

touch panel;none;physician's assistants

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas

In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.

none;none;physicians' assistants

OXYGEN TRANSPORT (shp119;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas

In this lesson, the general features of the oxygen-hemoglobin binding curve and their physiological significance are discussed. Also explained are the effect of changes in temperature, acidity and CO_2 concentration on hemoglobin affinity for oxygen, and the relative position of the hemoglobin-O_2 binding curve.

none;none;physicians' assistants

PALPATION - AUSCULATION (shp76;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas

This lesson discusses palpation and ausculation and the conditions affecting the transmission of vibrations.

stethoscope;none;physicians' assistants

VENTILATION OF THE ALVEOLI (shp74;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson discusses minute respiratory volume, alveolar ventilation, air conduction passageways, and methods of taking rate and volume measurements.
none;none;physicians' assistants

Respiratory organs

PULMONARY VOLUMES AND CAPACITIES (shp58;1975;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the four lung volumes and match each to its respective volume, and name the four lung capacities and identify the lung volumes that are included in each capacity.
none;none;physicians' assistants

UPPER AIRWAY DISEASE PART 2 (shp36;1974;unpublished)
Brent C Seager
Sheppard Air Force Base, Texas
This lesson simulates a physical examination that concentrates on the nose and nasal passageways, the chest, the ears, and the nasopharynx and oropharynx. The student is asked questions along the way to test his or her understanding of the material.
none;none;physicians' assistants

Respiratory organs--Diseases

ASTHMA (shp101;1975;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
In this lesson the student will learn to identify the symptoms of asthma and etiologic (causative) factors. Additionally, the user will become familiar with the modes of therapy for asthma and, given a specific patient, prescribe the appropriate therapy.
none;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART III (shp128;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson summarizes the various types of pneumonia, classifying them according to the micro-organism that causes the infection. Specifically covered are: epidemiology, subjective and objective data, pathology, diagnosis and treatment.
none;none;physicians' assistants

INFECTIOUS INFILTRATIVE LUNG DISEASE, PART II
(shpl16;1975;unpublished)
David R Stutz, Lawrence Russell
Sheppard Air Force Base, Texas
This lesson discusses the laboratory studies, data analysis, and treatment associated with infectious infiltrative lung disease.
slides;none;physicians' assistants

Respiratory organs--Diseases--Diagnosis

SPUTUM (shpl10;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
none;none;physicians' assistants

Résumés (Employment)

WRITING A RÉSUMÉ (rwriting;1981;unpublished)
Gary S Neuman, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson discusses the purpose of a résumé, illustrates the different parts of a résumé, explains how the user can best represent his/her profile on paper, and offers practice in writing a résumé.
touch panel;none;general

Rhetoric

REPAIRING SENTENCE FRAGMENTS (iusent;1979,80;unpublished)
Brent R Sweeny, Karl E Lehenbauer
Indiana University, College of Arts and Sciences
This lesson begins with a short review of the "basic needs" of a sentence: subject, verb, and completeness of idea, represented by a dependent clause standing alone. The role of the period is also emphasized. There are short drills illustrating the different problems and their "repairs".
none;30 minutes;high school/university writing students

TRANSITIONS (iutrans;1979,80;unpublished)
Brent R Sweeny, Kurt A Kahlo
Indiana University, College of Arts and Sciences
This lesson provides discussion of the uses and importance of transitions, with examples indicating how different transitions change the meanings of sentences. Various transitional devices and stategies are also mentioned, in addition to providing lists of words and phrases and practice using them.
none;30 minutes;advanced high school/university writing students

Saliva

SALIVA (shp198;1977;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses saliva and its functions in the mouth as it digests starches, enchances taste, cleans and lubricates.
none;none;dental assistants

Salivary glands

CIRCULATION, NERVES, SALIVARY GLANDS (shp18;1974;unpublished)
David R Stutz, Brian Hasse
Sheppard Air Force Base, Texas
This lesson teaches the student to name and state the basic functions of salivary glands and associated arteries, veins, lymphatics and nerves. There is a quiz at the end.
none;none;dental assistants

Scales, Musical

WELT - WELL TEMPERED FREQUENCY RATIOS FOR VARIABLE DIVISIONS OF THE OCTAVE (welt;1980;unpublished)
William Schaeffer
University of Illinois
The purpose of this lesson is to allow the user to calculate the frequency ratios of the notes of the scales that divide the octave into any number of well tempered divisions and to compare these with the frequency ratios of the just tempered scale. Help is available.
may be used with the music box;open-ended;students of music

Science--Basic tools

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

DIAGNOSTIC PRETEST FOR USE WITH MATHEMATICAL MATERIALS ... TO BUILD READINESS FOR HIGH SCHOOL SCIENCE (smpre;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This diagnostic test covers the following skills: plotting points with rectangular coordinates, operations with decimal numbers, conversions between percents and decimals, solving simple equations, reducing fractions, simplifying expressions and the use of exponents.
none;variable;high school science students

GRAPHING EXPERIMENTAL DATA PART III: AN INTRODUCTION TO DIRECT AND INVERSE VARIATION (wtvar;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson treats direct and inverse variation and furnishes the student with practice problems.
none;none;high school students

GRAPHING EXPERIMENTAL DATA PART II: WEIGHTS ON A LEVER (wtlever;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Tom Layman
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
In this experiment the student will balance weights on a lever and analyze the relationship between the size of a weight and how far from the fulcrum of the lever it balances.
none;none;high school students

GRAPHING EXPERIMENTAL DATA PART I: WEIGHTS ON A SPRING (wtgraph;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Stephen Peltz
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson provides an experiment in which the student measures and compares the elasticity of three different springs.
none;none;high school students

METRIC DRILL I: CHOOSING REASONABLE UNITS (metdrila;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct units of length, mass and volume when given sample problems.
none;open-ended;high school students

METRIC DRILL II: CHOOSING REASONABLE NUMBERS (metdrilb;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct numbers when estimating units of length, mass and volume in sample problems.
none;open-ended;high school students

METRIC DRILL III: CHOOSING REASONABLE MEASURES (metdrilc;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to estimate correct measures of length, mass and volume when given sample problems.
none;open-ended;high school students

Screw cutting machine

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.

This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.

none;60 minutes;vocational students

Service programs

Editor programs (PLATO)

GROUP DATA RECORD EDITOR (dataed;1981;unpublished)
Brent R Sweeny
Indiana University, College of Arts and Sciences

This lesson enables the user to efficiently (using minimal computer memory) inspect or edit "data" records attached to a group. There are options to add or change names or records, as well as their contents, in alpha, floating, integer, octal or signed/unsigned segment modes. Help is available throughout.

none;open-ended;PLATO authors and instructors

Sexadecimal system

ARITHMETIC OPERATIONS OF ADDITION, SUBTRACTION AND COMPLEMENTATION IN BASES 10, 2, 8, AND 16 (afs3;1975,79;unpublished)
Craig Burson
Federal Aviation Administration Academy, Oklahoma City

Upon completion of this lesson the student should be able to compute the base and base-1 complements of a number, identify and use the complement of the subtrahend method of subtraction, and perform these operations in bases 2, 8, 10, and 16. There is a quiz at the end of the lesson.

none;60 minutes;general

NUMBER CONVERSION (afs4;1975,79;unpublished)
Jim McKenzie, Craig Burson
Federal Aviation Administration Academy, Oklahoma City

After studying this lesson the student will be able to convert between decimal, binary, octal and hexidecimal numbers by grouping, charts or calculations. There are both practice exercises and a quiz at the end of the lesson.

none;30 minutes;students of electronics

NUMBER SYSTEMS (afs1;1975,79;unpublished)
J Thomas Schley, Craig Burson
Federal Aviation Administration Academy, Oklahoma City

In this lesson the student uses the general polynomial equation to determine the value of the digits of numbers in various bases by the position of the digit in the number. Also presented are the binary, octal and decimal number systems.

none;30 minutes;students of electronics

Signals and signaling, Automobile

VEHICLE WARNING SYSTEMS (cha85;1974;unpublished)
William T Kennedy
Chanute Air Force Base, Illinois
This lesson discusses vehicle warning systems, both audible and visual.
none;none;persons interested in automotive or other vehicle mechanics

Skin tests

SEASONAL ALLERGENS AND SKIN TESTS (shp67;1975;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses skin tests related to seasonal allergens (pollens and fungal spores).
none;none;physicians' assistants

Sociology

ASSEMBLY LINE SIMULATION (worker;1977;unpublished)
William Woodman, Tim Strawhacker, Jim Battin
Sociology Department, Iowa State University, Ames
This lesson simulates possible situations that might arise in the life of an assembly line blue-collar worker and illustrates some methods a worker might use to meet each case described.
none;50 minutes;sociology students

A GASOLINE RATIONING SIMULATION (tshort;1979;unpublished)
Tim Strawhacker, Jim Battin, Kathleen M Waggoner,
Hossein Ali Vaezi, Kenneth A Brewer, William Woodman
Sociology Department, Iowa State University, Ames
This lesson is a presentation of possible situations that could arise if a serious gasoline shortage were to occur. It also projects the consequences of the decisions of the user/student in meeting the crisis.
none;40 minutes;sociology students

Solitaire (Game)

SOLITAIRE (solitaire;1979;unpublished)
Norman R Fisher, Daniel R LaBerge
Comp.-based Educ. Res. Lab., University of Illinois
This lesson contains three versions of the game of Solitaire. One version is a betting game, another is a non-betting version and the third is an easy version that allows the player to go through the deck as many times as desired.
none;open-ended;general

Spanish language

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 2 THE SPANISH LANGUAGE IN THE WORLD (spmondel;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This module attempts to provide the user with some important historical information about the Spanish language, thereby promoting an understanding of the importance of Spanish in the present time.
none;approximately 3 hours;university/college students

PRACTICE EXERCISE WITH SPANISH NUMBERS (spnumb;1980;1980)
Fernand Marty, Robert Hart
French Department, University of Illinois
This lesson provides practice with Spanish numbers. The user can type in the figure with PLATO providing the number in Spanish, or PLATO can write the number in Spanish with the user providing the figure, or Plato can write the figure with the user typing in the number in Spanish.
none;open-ended;university/college students

Spanish language in America

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 2 THE SPANISH LANGUAGE IN THE WORLD (spmondel;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This module attempts to provide the user with some important historical information about the Spanish language, thereby promoting an understanding of the importance of Spanish in the present time.
none;approximately 3 hours;university/college students

Spanish language in Asia

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 2 THE SPANISH LANGUAGE IN THE WORLD (spmondel;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This module attempts to provide the user with some important historical information about the Spanish language, thereby promoting an understanding of the importance of Spanish in the present time.
none;approximately 3 hours;university/college students

Spanish language in Mexico

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 2 THE SPANISH LANGUAGE IN THE WORLD (spmondel;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This module attempts to provide the user with some important historical information about the Spanish language, thereby promoting an understanding of the importance of Spanish in the present time.
none;approximately 3 hours;university/college students

Spanish language--Grammar

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 3-10 THE PRONUNCIATION OF SPANISH (spn1;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach pronunciation of Spanish by treating rhythm, intonation, syllabication, diphthongs, consonants, vowels and their production. Spanish and English vowels are compared and discrimination exercises are provided for the user. Modules 3-7 are followed by quizzes.
audio cassettes;none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 11-14 LEARNING TO SPELL AND READ SPANISH (spn9;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
Spelling exercises with vowels, diphthongs and consonants are provided in these lessons. The student also is able to practice the pronunciation of the Spanish alphabet and word stress and is given some general reading guidelines.
audio cassettes;none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 15-74 EXERCISES IN VOCABULARY AND GRAMMAR (spn13;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach vocabulary and grammar by way of review and practice. New vocabulary words are presented throughout the modules and the grammar and vocabulary items already learned are examined with exercises and quizzes.
audio cassettes (optional);none;high school/university students

SPANISH VERB CONJUGATOR (spverb1;1980;unpublished)
Fernand Marty, Robert Hart, Sandra Moreno
French Department, University of Illinois
This lesson is the first in a series which allows the student to compose conjugation exercises with the verbs and tenses that need to be practiced. Each form of the verbs and tenses selected will be presented until the correct answer can be given without help. Two levels of difficulty are available.
none;open-ended;high school/college

Spanish language--Orthography and spelling

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 15-74 EXERCISES IN VOCABULARY AND GRAMMAR (spn13;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach vocabulary and grammar by way of review and practice. New vocabulary words are presented throughout the modules and the grammar and vocabulary items already learned are examined with exercises and quizzes.
audio cassettes (optional);none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 11-14 LEARNING TO SPELL AND READ SPANISH (spn9;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
Spelling exercises with vowels, diphthongs and consonants are provided in these lessons. The student also is able to practice the pronunciation of the Spanish alphabet and word stress and is given some general reading guidelines.
audio cassettes;none;high school/university students

Spanish language--Phonology

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 11-14 LEARNING TO SPELL AND READ SPANISH (spn9;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
Spelling exercises with vowels, diphthongs and consonants are provided in these lessons. The student also is able to practice the pronunciation of the Spanish alphabet and word stress and is given some general reading guidelines.
audio cassettes;none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 15-74 EXERCISES IN VOCABULARY AND GRAMMAR (spn13;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach vocabulary and grammar by way of review and practice. New vocabulary words are presented throughout the modules and the grammar and vocabulary items already learned are examined with exercises and quizzes.
audio cassettes (optional);none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 3-10 THE PRONUNCIATION OF SPANISH (spn1;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach pronunciation of Spanish by treating rhythm, intonation, syllabication, diphthongs, consonants, vowels and their production. Spanish and English vowels are compared and discrimination exercises are provided for the user. Modules 3-7 are followed by quizzes.
audio cassettes;none;high school/university students

Spanish language--Pronunciation

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 15-74 EXERCISES IN VOCABULARY AND GRAMMAR (spn13;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach vocabulary and grammar by way of review and practice. New vocabulary words are presented throughout the modules and the grammar and vocabulary items already learned are examined with exercises and quizzes.
audio cassettes (optional);none;high school/university students

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ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 11-14 LEARNING TO SPELL AND READ SPANISH (spn9;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
Spelling exercises with vowels, diphthongs and consonants are provided in these lessons. The student also is able to practice the pronunciation of the Spanish alphabet and word stress and is given some general reading guidelines.
audio cassettes;none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 3-10 THE PRONUNCIATION OF SPANISH (spn1;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach pronunciation of Spanish by treating rhythm, intonation, syllabication, diphthongs, consonants, vowels and their production. Spanish and English vowels are compared and discrimination exercises are provided for the user. Modules 3-7 are followed by quizzes.
audio cassettes;none;high school/university students

Spanish language--Reading

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 11-14 LEARNING TO SPELL AND READ SPANISH (spn9;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
Spelling exercises with vowels, diphthongs and consonants are provided in these lessons. The student also is able to practice the pronunciation of the Spanish alphabet and word stress and is given some general reading guidelines.
audio cassettes;none;high school/university students

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULES 15-74 EXERCISES IN VOCABULARY AND GRAMMAR (spn13;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
These lessons teach vocabulary and grammar by way of review and practice. New vocabulary words are presented throughout the modules and the grammar and vocabulary items already learned are examined with exercises and quizzes.
audio cassettes (optional);none;high school/university students

Spanish language--Study and teaching

ELEMENTS FOR SELF-EXPRESSION IN SPANISH, MODULE 1 HOW TO USE THE PLATO KEYBOARD (spintro;1980;unpublished)
Fernand Marty, Sandra Moreno, Philip Flahive
University of Illinois, Urbana, Illinois
This introductory Spanish lesson teaches the student to use the PLATO keyboard and discusses the advantages to be gained from using the PLATO system in a foreign language course.
none;none;persons interested in learning Spanish

Spelling ability--Testing

SPELLING TEST (iuspel;1979;unpublished)
Tim Stehle, William Oates, Eric Hagstrom
School of Journalism, Indiana University, Bloomington
This lesson tests the spelling of words commonly misspelled by journalists. Scoring is kept for both accuracy and speed for random subsets of the entire vocabulary. There is a records section for those who wish to compete.
none;open-ended;high school and college level students

Sputum

SPUTUM (shp110;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
none;none;physicians' assistants

Stains and staining (Microscopy)

SPUTUM (shp110;1975;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
This lesson provides the student with the basic information necessary to properly collect, transport and logically request tests that will be meaningful in the diagnosis and treatment of many respiratory diseases.
none;none;physicians' assistants

Statistics

Medicine

ANALYSIS OF VARIANCE FOR REPEATED MEASURES (anovarep;1979,80;unpublished)
Jeffrey Shoup, Anal Purohit, Joseph Kaufman
College of Pharmacy, U of I Medical Center
This lesson for analysis of variance is applicable when repeated measures are taken on the same subject at different experimental levels.
none;open-ended;students of medicine and the health sciences

PHARMACOKINETICS CALCULATIONS (pkinmod;1980;unpublished)
Tobias Yeh, Joseph Kaufman, Charles Guerra
College of Pharmacy, U of I Medical Center
This lesson calculates dose, dosing level and level of drug in the body for 194 drugs.
none;open-ended;students of medicine and the health sciences

Storage batteries

BATTERY HYDROMETER (cha26;1974;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
In this lesson the student will learn to use a battery hydrometer to determine the state of charge in a battery.
none;none;persons interested in automobile mechanics

BATTERY PRINCIPLES (chall;1972;unpublished)
C C Dennis
Chanute Air Force Base, Illinois
This lesson presents basic facts and general operating principles of storage batteries, concentrating on the purpose and construction of the automotive storage battery.
none;none;persons interested in automobile mechanics

Subtraction

MAKE A BUNDLE (zbundleg;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides practice and motivation for working arithmetic problems quickly and accurately. The object of the game is to make as much PLATO money as possible by solving as many problems as possible in the 120 seconds allowed. The student should improve his speed and ability in working addition, subtraction, multiplication and division problems.
none;open-ended;intermediate level elementary students

THE FOURS PROBLEM (fourprob;1976;unpublished)
Whole Number Elem. Math. Group
U of I NSF Elem. Math. Group, Urbana, Illinois
This lesson provides a challenging activity for experimenting with arithmetic expressions. The student must generate a number between one and one hundred, using four fours.
none;open-ended;intermediate level elementary students

Technical education

CHANUTE AFB PLATO CATALOGUE, 3330 TECHNICAL TRAINING WING (chacat;1980;unpublished)
Dennis Cadwell, Paul C Aschenbrenner
Chanute Air Force Base, Illinois
This catalogue itemizes the lessons currently being utilized by Chanute Air Force Base personnel to conduct both mainline and peripheral training. Lesson titles and lesson names are listed under each category of use.
none;open-ended;persons interested in technical training

Technology--Study and teaching

INDEXING (abe23;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student the correct formulas and accurate calculations for the direct, plain and degree indexing patterns. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

KEYS AND KEYWAYS (abe12;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the commonly used keys and keyways and calculate the dimensions for machining the keyways to the correct dimensions. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.
none;60 minutes;vocational students

MACHINIST PROFICIENCY TEST (abe46;1974;1981)
Frank C Dare
Aberdeen Proving Grounds, Maryland
This lesson provides a test on topics pertinent to machinery. Ten minutes are allowed for completion and the test may be repeated.
paper and pencil;10 minutes per testing;vocational students

READING THE MICROMETER CALIPER (abe4;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the parts of a micrometer and to interpret the readings of a micrometer. The student may choose to take a pretest or to take a test at the end of the lesson.
none;60 minutes;vocational students

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abel7;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Teeth

DENTITION (shp115;1975;unpublished)
Daniel L Henkel, R M Kimball
Sheppard Air Force Base, Texas
In this lesson the student will learn to name the teeth and identify them using the Air Force numbering system. The eruption schedules for both permanent and deciduous teeth will be discussed. Additionally, the largest, smallest and longest, as well as the surfaces of the teeth, will be identified. There is a quiz at the end.
none;none;dental assistants

TOOTH ANATOMY (shp32;1974;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
In this introductory lesson the student will learn four basic anatomical terms used in dentistry.
none;none;dental assistants

Teeth--Innervation

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

Therapeutics, Ophthalmological

ACTIONS AND USES OF OPHTHALMODIAGNOSTIC DRUGS
(shp238;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
This lesson discusses the effect drugs have on the nervous system. Drugs that are commonly found in an optometry clinic are covered also, with the concentration being on ophthalmodiagnostic drugs.
none;none;students of optometry

Tongue--Muscle

AUXILIARY MUSCLES OF MASTICATION (shp156;1976;unpublished)
Gerald J Roseman
Sheppard Air Force Base, Texas
This lesson discusses the muscles which are used to keep the food in position for proper mastication and swallowing.
none;none;dental assistants

Torts

INTRODUCTION TO TORTS DEFENSES (tortdef;1978;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
This lesson reviews tort elements and defenses. Summaries of defenses are presented and practice problems are offered for the student's review.
none;none;students of law

INTRODUCTION TO TORTS (torts;1978,80;unpublished)
Robert C Platt
Antioch Law School, Washington, D. C.
Based on the report of the Competency Based Task Force, this lesson presents materials pertaining to torts and tort law. Drills are offered to help the student apply the concepts.
none;none;first year law students

Transients (Electricity)

RC CIRCUITS -- TRANSIENT ANALYSIS (rctrans;1980;unpublished)
Larry Hayes, Rudy Escobedo, George Francis
Federal Aviation Administration Academy, Oklahoma City
After completing this lesson, given a schematic diagram of an RC circuit and component values, the student should be able to calculate tau, effective voltage, and the capacitor voltage at various time constants. Practice problems are included.
none;30 minutes;students of electronics

Trigeminal nerve

NERVES TO THE TEETH (shp26;1974;unpublished)
David R Stutz
Sheppard Air Force Base, Texas
This lesson discusses the fifth cranial nerve or trigeminal nerve and its branches that innervate the structures of the face, mouth and teeth.
none;none;dental assistants

Turning

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.

This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.

none;60 minutes;vocational students

Typewriting

SPEED TYPING (type;1980;unpublished)
Peter Zelchenko
City Colleges of Chicago

This typing lesson offers 25 simple words at a time to type for practice.

none;open-ended;general

TYPING (patterns;1981;unpublished)
Andrew Shapira
University of Illinois

This lesson contains six tests of typing skill with personal records kept for each. In some tests the Dvorak Simplified Keyset is available. An overall ranking system exists for comparison.

none;open-ended;general

United States. Air Force

Aeromedical Evacuation System

AEROMEDICAL EVACUATION TECHNIQUES (shp294;1978;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas

This lesson presents the United States Air Force Aeromedical Evacuation System and upon completion of the lesson the user should be able to understand the classification of patients to be transported and to assess the physical and emotional preparation of the patients.

none;none;physicians' assistants

United States. Air Force--Forms, blanks, etc.

HOW TO ORDER PUBLICATIONS AND FORMS (admnpub3;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas

This lesson provides some background on the various offices involved in the distribution of Air Force publications and forms. It teaches the user to order publications and forms on Air Force Form 764a.

none;30 minutes;Air Force personnel/general

INTRODUCTION TO AIR FORCE PUBLICATIONS (admnpubl;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson discusses the two kinds of Air Force publication libraries, the standard publications numbering system, and the uses of the AFR 0-2 and the AFR 0-9 publications.
none;30 minutes;Air Force personnel/general

United States. Air Force--Government publications

HOW TO ORDER PUBLICATIONS AND FORMS (admnpub3;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson provides some background on the various offices involved in the distribution of Air Force publications and forms. It teaches the user to order publications and forms on Air Force Form 764a.
none;30 minutes;Air Force personnel/general

INTRODUCTION TO AIR FORCE PUBLICATIONS (admnpubl;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson discusses the two kinds of Air Force publication libraries, the standard publications numbering system, and the uses of the AFR 0-2 and the AFR 0-9 publications.
none;30 minutes;Air Force personnel/general

PUBLICATIONS LIBRARIES (admnpub2;1979;unpublished)
Gary W Cathers
Sheppard Air Force Base, Texas
This lesson teaches the user to differentiate between a Master Publications Library and a Functional Publications Library, to file publications in a Functional Publications Library, and to keep publications current by posting changes and supplements to the basic publications.
none;30 minutes;Air Force personnel/general

Universal joints (Mechanics)

U-JOINTS AND PROPELLER SHAFTS (cha82;1974;unpublished)
John Predmore
Chanute Air Force Base, Illinois
This lesson treats the basics and operating principles of propeller shafts, universal joints, center bearings and slip joints.
none;none;persons interested in automobile mechanics

Urinary organs

STRUCTURES AND FUNCTIONS OF THE URINARY SYSTEM (shp241;1977;unpublished)
Richard L Mosley
Sheppard Air Force Base, Texas
After a pretest, this lesson discusses and diagrams the different parts of the urinary system. The student is tested again at the end of the lesson.
none;none;students of the health sciences

Utility programs

Editor programs (PLATO)

GROUP DATA RECORD EDITOR (dataed;1981;unpublished)
Brent R Sweeny
Indiana University, College of Arts and Sciences
This lesson enables the user to efficiently (using minimal computer memory) inspect or edit "data" records attached to a group. There are options to add or change names or records, as well as their contents, in alpha, floating, integer, octal or signed/unsigned segment modes. Help is available throughout.
none;open-ended;PLATO authors and instructors

Valves

VALVE TRAIN MECHANISMS (cha18;1973;unpublished)
R Blocker
Chanute Air Force Base, Illinois
This lesson treats the mechanical and hydraulic valve operating system and discusses timing chains, camshafts, lifters, push rods, and valves.
none;none;persons interested in automobile mechanics

Venn diagrams

LOGIC - USING VENN DIAGRAMS TO TEST THE VALIDITY OF CATEGORICAL SYLLOGISMS (vennc;1978;unpublished)
Doug Wills, Nik Hughes, Don Nolen, Bruce Suttle,
John Hertig
Parkland College, Champaign, Illinois
This lesson discusses the use of Venn diagrams to check logical arguments for validity. After each section there are exercises to check the user's understanding of the material.
none;none;persons interested logic diagrams

Ventilation-perfusion ratio

MATCHING OF VENTILATION AND PERFUSION (shp122;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
In this lesson the student will learn the meaning of the term V/Q ratio, the effect of gravity on distribution of blood flow and V/Q ratios in the normal lung, and the effect of the scattering of V/Q ratios on arterial blood gases.
none;none;physicians' assistants

Veterinary medicine

CANINE NEUROLOGICAL DISORDERS (nneurox;1976;unpublished)
Alan Parker, Richard S Trynda, Lawrence R North
College of Veterinary Medicine, U of I, Urbana
In this lesson the student chooses a clinical neurological case and attempts to localize the lesion and determine its severity by obtaining information on the animal's nervous system.
none;none;students of veterinary medicine

Veterinary neurology

CANINE NEUROLOGICAL DISORDERS (nneurox;1976;unpublished)
Alan Parker, Richard S Trynda, Lawrence R North
College of Veterinary Medicine, U of I, Urbana
In this lesson the student chooses a clinical neurological case and attempts to localize the lesion and determine its severity by obtaining information on the animal's nervous system.
none;none;students of veterinary medicine

Veterinary ophthalmology

THE PUPILLARY LIGHT REFLEX (puflex;1974;unpublished)
John Silver, Arvle E Marshall, Lloyd C Helper
College of Veterinary Medicine, Univ. of Illinois
This lesson provides five clinical cases illustrating the pupillary light reflex. Completion of the lesson should enable the student to test the pupillary light reflex and use that knowledge in assessing blindness and the extent of some types of lesions.
none;none;students of veterinary medicine

Vision

INTRODUCTION TO COLOR VISION (shp301;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
The characteristics of color and two color theories are presented along with problems related to various color defects and the relationship of color to sex. The student also learns about some of the tests used to check color vision.
none;none;students of optometry

INTRODUCTORY BASIC OPTICS (shp142;1976;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This study of vision discusses several theories of light propagation, describes important characteristics of light, and defines laws and characteristics of reflection and refraction. There is a quiz at the end.
none;none;students of optometry

THE VISUAL FIELD (shp23;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines the terms used in visual field plotting and teaches the student to trace the nervous pathway for the sense of sight and to describe methods of plotting both central and peripheral visual fields.
none;none;students of optometry

VISION TRAINING (shp206;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson defines Vision Training (VT), differentiating between VT and Orthoptics. Reasons for prescribing VT are covered and the student should learn to predict the prognosis of various VT candidates. Some clinical and home procedures for treatment of heterotropia, amblyopia and accommodative problems are also discussed.
none;none;students of optometry

VISUAL ACUITY TESTING THEORY (shp290;1978;unpublished)
Louis V Genco
Sheppard Air Force Base, Texas
This lesson discusses types of visual acuity and some of the ways in which vision is measured.
none;none;students of optometry

Vision disorders

HORIZONTAL EYE MOVEMENT (eyemove;1980;unpublished)
Brian A Curtis, Peggy E Dengler, Michael R Hughes
School of Basic Medical Sciences, Univ. of Illinois
This review and drill on horizontal eye movement discusses deficits in the nervous control system to those muscles which lead to doubles in vision.
none;none;medical students and students of the health sciences

Vocational education

INDEXING (abe23;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student the correct formulas and accurate calculations for the direct, plain and degree indexing patterns. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

KEYS AND KEYWAYS (abe12;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the commonly used keys and keyways and calculate the dimensions for machining the keyways to the correct dimensions. The student may choose to take a pretest or a test at the end of the lesson.
none;60 minutes;vocational students

LATHE-SPEEDS, FEEDS AND DEPTHS OF CUT (abe3;1973;1981)
Fred A Hall
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to compute proper spindle speed, feed and depth of cut when operating a lathe, and to choose the proper coolants. The student may take a pretest or a test may be taken at the end of the lesson.
none;60 minutes;vocational students

MACHINIST PROFICIENCY TEST (abe46;1974;1981)
Frank C Dare
Aberdeen Proving Grounds, Maryland
This lesson provides a test on topics pertinent to machinery. Ten minutes are allowed for completion and the test may be repeated.
paper and pencil;10 minutes per testing;vocational students

READING THE MICROMETER CALIPER (abe4;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson teaches the student to identify the parts of a micrometer and to interpret the readings of a micrometer. The student may choose to take a pretest or to take a test at the end of the lesson.
none;60 minutes;vocational students

SPUR GEAR CALCULATIONS AND NOMENCLATURE (abe17;1973;1981)
Steve Smith
U.S. Army Ordnance Center and School, Aberdeen, Md.
This lesson provides the nomenclature, formulas and cutter ranges needed to machine a gear to required dimensions. The student may choose to take a pretest or a test at the end of the lessons.
none;60 minutes;vocational students

Vocational guidance

ARE YOU LOOKING FOR A JOB? WHERE DO YOU BEGIN?
(jsearch;1980;unpublished)
Joni Parman, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson helps the user to assess his/her own skills and provides a list of many occupations or professions available. Each job is explained and the abilities required for it are enumerated.
touch panel;none;general

HOW TO FILL OUT JOB APPLICATION FORMS (jobappl;1981;unpublished)
Karen G Wolfsen, Jim Mayeda
School of Social Work, University of Illinois, Urbana
With examples and practice, this lesson teaches the user how to fill out a job application form.
touch panel;none;general

HOW TO READ WANT ADS (wantads;1980;unpublished)
Joni Parman, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson discusses the abbreviations commonly found in want ads and helps the user to become familiar with reading want ads.
none;none;general

JOB SURVIVAL SKILLS (survive;1981;unpublished)
Sue Bednar, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson discusses the basic tools of job survival, strategies for making the most of a job, and problem solving skills.
touch panel;none;general

PREPARING FOR YOUR INTERVIEW (prepare;1981;unpublished)
Lisa Patchner, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson provides the user with much useful information on preparing for a job interview.
touch panel;none;general

WHERE TO LOOK FOR JOBS (jlook;1980;unpublished)
Joni Parman, Jim Mayeda, Lisa Patchner
School of Social Work, University of Illinois, Urbana
This lesson discusses the various and common places to search when looking for a job.
none;none;general

WRITING A RÉSUMÉ (rwriting;1981;unpublished)
Gary S Neuman, Jim Mayeda
School of Social Work, University of Illinois, Urbana
This lesson discusses the purpose of a résumé, illustrates the different parts of a résumé, explains how the user can best represent his/her profile on paper, and offers practice in writing a résumé.
touch panel;none;general

Voltmeter

ELECTRONIC SCOPE PATTERNS (sun;1976;unpublished)
Tom Black
Chanute Air Force Base, Illinois
This lesson is designed to assist students of automobile mechanics in electronic scope pattern identification and interpretation, which is essential for maintenance of the ignition system.
none;none;persons interested in automobile mechanics

USING THE SIMPSON MULTIMETER TO MEASURE VOLTAGES (san39;1977;unpublished)
George F Lahey, Craig Burson
US Navy Personnel Res. & Dev. Cntr./FAA Academy
This lesson is designed to help the user arrive at the proper connection of the meter to measure voltage when using the meter in the laboratory or a real-life situation. There is a practice lab at the end of the lesson to check the student's understanding of the material.
none;none;students of electronics

Volume

Gases

PRESSURE-VOLUME RELATIONSHIP BOYLE'S LAW (shp70;1975;unpublished)
Arland W Eyl
Sheppard Air Force Base, Texas
This lesson discusses one of the fundamental laws of the behavior of gases - Boyle's Law.
none;none;physicians' assistants

Weights and measures

Metric system

AN INDEX TO SOME MATHEMATICS MATERIALS INTENDED TO BUILD READINESS FOR HIGH SCHOOL SCIENCE COURSES (smindex;1979,80;unpublished)
Sharon Dugdale, David Kibbey
Comp.-based Educ. Res. Lab., University of Illinois
This index provides a collection of lessons dealing with mathematics skills needed in early science courses.
none;variable;high school students

METRIC DRILL I: CHOOSING REASONABLE UNITS
(metdrila;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct units of length, mass and volume when given sample problems.
none;open-ended;high school students

METRIC DRILL II: CHOOSING REASONABLE NUMBERS
(metdrilb;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to choose correct numbers when estimating units of length, mass and volume in sample problems.
none;open-ended;high school students

METRIC DRILL III: CHOOSING REASONABLE MEASURES
(metdrilc;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Jim Mayeda
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson drills the student's ability to estimate correct measures of length, mass and volume when given sample problems.
none;open-ended;high school students

METRIC SYSTEM (shp136;1979;unpublished)
Robert E LaCoe
Sheppard Air Force Base, Texas
Upon completion of this lesson the student should be able to state the basic metric units for measuring length, mass and volume, and perform conversions between units in the metric system using the correct prefixes and symbols.
none;none;physicians' assistants

GRAPHING EXPERIMENTAL DATA PART II: WEIGHTS ON A LEVER
(wtlever;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Tom Layman
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
In this experiment the student will balance weights on a lever and analyze the relationship between the size of a weight and how far from the fulcrum of the lever it balances.
none;none;high school students

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GRAPHING EXPERIMENTAL DATA PART I: WEIGHTS ON A SPRING
(wtgraph;1979,80;unpublished)
Sharon Dugdale, David Kibbey, Stephen Peltz
Comp.-based Educ. Res. Lab., U of I, Urbana, Ill.
This lesson provides an experiment in which the student measures and compares the elasticity of three different springs.
none;none;high school students

GRAPHING EXPERIMENTAL DATA PART III: AN INTRODUCTION TO DIRECT AND INVERSE VARIATION (wtvar;1979,80;unpublished)
Sharon Dugdale, David Kibbey
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This lesson treats direct and inverse variation and furnishes the student with practice problems.
none;none;high school students